



C & D

CHEMIST AND DRUGGIST

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No. 4626

A Company's Drugs Restricted

NO SUBMISSIONS TO DUNLOP COMMITTEE

THE Minister of Health, Secretary of State for Scotland and the Northern Ireland Minister of Health and Social Services are advising pharmacists, dispensing doctors and hospitals not to use any preparation marketed by I.C.P. (Ireland), Ltd., 7 Upper Fitzwilliam Street, Dublin, 2, Eire, until confirmation has been received of approval by the Committee on Safety of Drugs.

That advice follows the receipt by the Ministers of a letter from the Committee stating that it is greatly concerned to have to report that a number of drugs not approved by the Committee have apparently recently been marketed in the United Kingdom by I.C.P. (Ireland), Ltd. The letter adds:

Full details of the range of the drugs concerned are not available as no submission on any preparation has ever been received from this company. The Committee has reason to believe, however, that preparations marketed by this company include antibiotics and preparations described as amitriptyline, methyl-dopa, diazepam and chlordiazepoxide, but the list may in fact be longer than this. The Committee recommends to the Ministers that doctors and pharmacists should be advised as a matter of urgency that, as no submission on any preparation has been received, the Committee are unable to pass an opinion on the safety for use of any preparation currently being marketed by this company.

Pharmacists in several parts of the country have received from Inter-Channel Pharmaceuticals, Ltd., 6 York Street, St. Helier, Jersey, a leaflet describing "substantial savings" in respect of a number of antibiotics, steroids, sedatives and tranquillisers. The products are being offered without indemnities in respect of any patent infringement actions that might arise. It is understood that the company is not known to the Dunlop Committee who has no information on its activities.

Trade Descriptions Act

EFFECT ON COSMETIC INDUSTRY

SPEAKING to a meeting of the Toilet Preparations Federation, Ltd., held in London, recently, Mr. Bowes Egan (lecturer in law, City of London College) told how the cosmetic industry might feel some impact from the Trade Descriptions Act. Advertisements currently appearing in women's and teenage magazines would have to be

scrutinised; some of the more optimistic claims made for beauty products would be outlawed. And quasi-medicine products designed to rejuvenate, to remove facial hair, or to cure 'teenage skin' would have to be advertised so that there was no express or implied misrepresentation about the physical characteristics of the treatments or about the results these might achieve. The new law might hit hardest at the small beautician advertising wonder cures, beauty treatments, bust development creams or cosmetic cures for bone deficiencies through the personal columns of the local press and through the small-advertisement pages of some women's magazines. But the giant manufacturers must not ignore the law. They had more to lose. Besides the manufacturer, where inaccurate claims appeared on packaging or were associated with goods at point of sale, the retail chemist or supermarket operator might be convicted. For some time some of the large companies had consoled themselves with the argument that enforcement officers, who were mainly local weights and measures inspectors, would not be able to enforce the new law. But it was now clear that these officers were capable of discharging their duties and were resolved to do so.

TV Health Education

SELF-MEDICATION CRITICISED

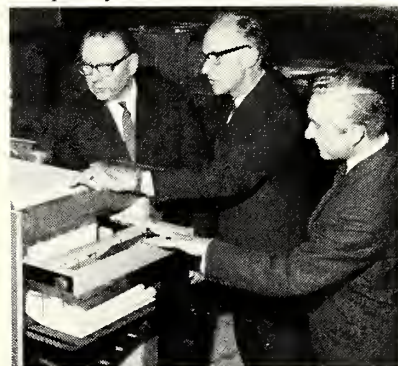
TELEVISION should be used to a much greater extent than hitherto in health education, said Dr. Charles Fletcher at a recent symposium on the impact of television on medicine. The symposium was organised by the library (scientific research) section of the Royal Society of Medicine. The potential contribution that could be made by television was enormous, said Dr. Fletcher, owing to the size of the audience and its power to influence those with visual minds. He suggested that the increase in self-medication meant that people should be taught

how to look after themselves. Much self-medication at present was either ineffective or harmful. There was a great field for better education than was at present available, not only in teaching people what to do but also what to take. Among subjects that were suitable for television Dr. Fletcher suggested early diagnosis, use of health services, management of pregnancy, children and old people and the prevention of a variety of harmful habits. He also thought more should have been done to educate the public on aspects of mental health. Asked whether, if self-medication was, as he claimed, harmful or ineffective television advertising of medicines should not be reduced, Dr. Fletcher said that self-medication was an important part of the control of illness. It helped prevent doctors becoming overloaded with work. However, there was a need to give more information.

Toilet Preparations

EXPORT SALES UP 24 PER CENT.

MANUFACTURERS' total sales of toilet preparations at current prices in the period April-June at nearly £29.2 million were 4 per cent. higher than those in the corresponding period of 1967 according to the Board of Trade's *Business Monitor*. Export sales at £4.3 million were up by 24 per cent. on the equivalent 1967 period while the total volume of sales to the home market, at current prices showed an increase of only 1 per cent. If an allowance is made for an increase of 6½ per cent. in wholesale prices over the past year it is estimated that the



MECHANISING MONTHLY STATEMENTS: Examining the computer processing a monthly statement of one of Unichem, Ltd.'s customers are Messrs. J. Howard Evans (chairman), A. C. W. Channon (secretary) and G. J. White (managing director). See also p. 347.

volume of sales of toilet preparations in the second quarter of 1968 was about 2½ per cent. lower than in the corresponding period of 1967.

Take-over Statement

"CONFUSION" OVER NAMES

COMMENTING in the *Bath & Wilts Evening Chronicle* on the recent press release that the Gateway Food Markets group had acquired David White (Chemists), Ltd. (see C. & D., October 5, p. 327), Mr. L. J. F. Preddy (chairman, Mills & Mills (Chemists), Ltd., 8 George Street, Bath), said that it might lead to confusion in the minds of their readers. The following is an abstract of the letter:—

Historically, there was a connection between our company, Mills and Mills (Chemists) and Mills and Mills (David White) the company being taken over, but this is not so at the present time. In 1915 Mr. A. E. Mills and his brother acquired the Bath business, and continued in business until 1931, owning the pharmacies at 8 George Street and Keynsham, when they split their interests. Mr. F. Mills took over the business at Keynsham, managed by Mr. David White, and Mr. A. E. Mills ran the business at 8 George Street, Bath. The records of this latter business go back to 1812, when it was run by a Mr. J. C. Pooley, who, was famous for his Bath cough pills. Mr. Tom Cornish, now Councillor Cornish, who is our managing director, acquired the business in the early 1930s and built up a small group of shops at Bath and Bristol. In recent years the less economic have been sold, and Mills and Mills (Chemists) now has the old established business at George Street and the more recent pharmacy at High Street, Weston. Some confusion has arisen in recent years, since Mills and Mills (David White) acquired the business of Mr. T. Mills at Oldfield Park, and traded as Mills and Mills, and it is these shops that have been taken over by the supermarket group. We, of course, will continue to operate our pharmacies and the company under the control of pharmacists.

Agricultural Chemicals

ADDITIONS TO APPROVED LIST

THE Agricultural Departments of the United Kingdom announce that the following products have been approved under the Agricultural Chemicals Approval Scheme:—

CHLOROPHAM WITH PROPAM: LIQUID FORMULATIONS: For the prevention of sprouting of ware potatoes stored in buildings. Pometrol (Sam Fletcher, Ltd.).

CHLORFENVINPHOS WITH ORGANOMERCURY: DRY SEED DRESSINGS: Reduces damage by wheat bulb fly and controls bunt of winter wheat. Sapecron seed dressing (Plant Protection, Ltd.).

DALAPON: SODIUM SALT FORMULATIONS: Campbell's dalapon (J. D. Campbell & Sons, Ltd.), Southern's dalapon (Thos. Southern & Sons).

DICHOENIL: GRANULAR FORMULATIONS: Soil acting residual herbicide for the control of annual and some perennial weeds in established blackcurrants, gooseberries and rhubarb. Casoron G (Mi-Dox, Ltd.).

DINOSEB: AMINE SALT FORMULATIONS: Dinubup special DNBP Weedkiller Concentrate (Bugge's Insecticides, Ltd.).

DNOC IN PETROLEUM OIL: Sterilite DNC petroleum winter wash; Sterilite high DNC petroleum winter wash (Butler Chemicals, Ltd.).

ETHION WITH ORGANOMERCURY: DRY SEED DRESSINGS: Reduces damage by wheat bulb fly and controls certain seed borne diseases of wheat. Embathion seed dressing (May & Baker, Ltd.).

FENTIN HYDROXIDE: WETTABLE POWDERS: Cropdex Fentin 20 (Cropdex, Ltd.).

LENACIL: WETTABLE POWDERS: Du Pont Venzar lenacil weedkiller (Du Pont (U.K.), Ltd.).

Decimal Coins Booklet

NO PLACE FOR THE SIXPENCE

THE third booklet in the Decimal Currency Board's series, "Britain's new coins," published on September 27 (H.M. Stationery Office, price one shilling), dismisses the argument that a decimal coin equivalent to sixpence (2½ new pence under the decimal system) should be introduced when the changeover begin on D Day, February 15, 1971. The Board say that practical experience shows that coins ending in fractions are more difficult in a decimal system, slowing payment and increasing mistakes. They list the sixpence for withdrawal at the end of the changeover period (not later than August 1972) along with the other remaining £sd coins, one penny and threepence. In the Board's October "Newsletter" the chairman (Lord Fiske) appeals to retailers to draw more shillings and 5p coins from the banks to help put more into circulation in preparation for the eventual disappearance of the half-crown and the sixpence.

Chemist's Retail Sales

BOARD OF TRADE STATISTICS

THE index of retail sales by chemists and photographic goods dealers in August was 119 (average monthly sales in 1966=100), an increase of 10 per cent. over the same period a year earlier. Figures recently issued by the Board of Trade also reveal the following indices for the month:—

Independent retailers	123 (+7 per cent.)
Multiple retailers	116 (+16 per cent.)
Co-operative societies	95 (—1 per cent.)

The figures do not allow for receipts under the National Health Service.

Tax Exemptions

CONSOLIDATED LIST OF DRUGS ISSUED

THE Purchase Tax (No. 2) Order 1968 which came into operation on October 3, consolidates the list of drugs and medicines which were free of purchase tax on September 23. The consolidated list supersedes the existing list shown in the Purchase Tax (No. 1) Order 1967 and includes the items subsequently exempted by the Customs and Excise in Directions. The Order, available from H.M. Stationery Office, price 2s., does not exempt any additional substances or cancel any existing exemption.

Guild's New Service

ABSTRACTS ON CARDS

FIRST set of 6 x 4 in. cards in a new pharmacy and therapeutics abstracts service has been issued by the Guild of Public Pharmacists. The service replaces a feature previously published in the Guild's journal. Selection of papers for abstracting will be made with a view primarily to their practical importance to pharmacists and other medical workers who wish to keep up to date in the fields of therapeutics, toxicology and pharmaceutical techniques. Cost of the service is £7 7s. a year and orders should be placed with the Guild at Premier House, 150 Southampton Row, London, W.C.1.

IRISH NEWS

THE REPUBLIC

1968 Congress

GALWAY EVENT OUTSTANDING SUCCESS

THE Irish Pharmaceutical Congress, held in Galway, October 6-9, was voted an outstanding success, with an average attendance at the sessions of around eighty and over 260 booked for the banquet. Members came from Cork, Wexford, Dublin, Drogheda, Donegal and places between. One pharmacist from Britain, Miss Maire McCarthy won the ladies' golf award. Officially opening the Congress the mayor of Galway (Alderman Robert Molloy, T.D.) asked pointedly "what has happened to the White Paper on the health services, which was introduced by the late Mr. O'Malley when he was Minister for Health? Included in it had been some excellent recommendations and he hoped the Irish Pharmaceutical Association and the Pharmaceutical Society of Ireland would press the Department of Health for action. If the public were aware of the system that was now operating they would be only too glad to approve any increased expenditure that would be involved in improving it. The president of the Pharmaceutical Society of Ireland (Mr. M. L. Cashman) acknowledging the mayor's remarks said it was sad that the advice of a profession serving the public was not listened to. [The Congress will be more fully reported next week.]

NEWS IN BRIEF

OCTOBER revisions to the Drug Tariff (Scotland) include price changes for hypodermic syringes and trusses and additions to the lists of gauze dressings and insufflators.

LONDON clearing banks are believed to favour a scheme of opening from 9.30 a.m. to 4 or 4.30 p.m. on five days a week after July 1969 when Saturday closing is to take place.

THE Ministry of Health and the Scottish Home and Health Department have made an initial distribution to chemist contractors and dispensing doctors of gummed labels bearing the wording: "GOING METRIC. As part of the changeover your chemist is using the new metric bottle which, although not filled, does contain the fully prescribed quantity — Ministry of Health" (or "Scottish Home & Health Department"). Additional labels are available from Executive Councils.

THE National Pharmaceutical Union is carrying out a poll among members of seven branches in the Glamorgan area (excluding Cardiff and Swansea) to find out whether they would prefer an amalgamation of the branches to form one large county branch or to preserve the status quo. Members are also being asked what centre they would prefer for a "county" branch and are reminded that they may, if they wish, transfer their membership to another branch.

THE Agricultural Departments in Great Britain have reminded farmers that cereal seed dressings containing

aldrin, dieldrin or heptachlor should only be used on seed for autumn sowing and then only where there is a serious risk of damage by wheat bulb fly. Seed treated with such dressings should not be sown after December 31 and an alternative chemical should be used if there is any likelihood of sowing being held over beyond that date.

SPORT

GOLF

IRISH CHEMISTS GOLFING SOCIETY. A fitting end to a popular reign. That was the unanimous opinion of the sixty members of the Society from ten counties as they sat down to dinner in Elm Park on September 25 and heard Mr. Bill Mullen address them for the last time as their captain. Weatherwise the final outing of the season had been "no great shakes" but from the sporting and competitive point of view could hardly have been bettered, it is reported. From across the Border as for many years past, came Mr. Harry Boyd, and two other members of the Ulster Chemists Golfing Association, Mr. Tom Bogues, and Don Moncrieff (acting secretary). Star performer of the day was Mr. R. A. Tierney, who appropriately is president of Elm Park Golf Club. Off a seven handicap he turned in a card of 33 strokes to win the *Committee prize*, which replaces the *President's prize*. Other results: *Class 1*, D. Mulvey (8), 30; C. J. Staunton (7), 29. *Class 2*, S. Carroll (11), 32; E. O'Grady (14), 32. *Class 3*, C. Conefrey (15), 30; P. McAuliffe (16), 29. *Class 4*, P. O'Hara (20), 32; M. O'Shaughnessy (19), 31. Proposing the toast of the Society, MR SEAMUS BYRNE urged members to play a more active part in the running of the club. He said there was much work to be done, particularly in organising the annual four-day outing. Replying, MR MULLEN said that it was his privilege to welcome members as captain for the last time. Reminding the gathering that this was the fiftieth year of the U.C.G.A. Mr. Mullen congratulated the guests from the North in having reached their golden jubilee. Under the watchful eye of its secretary (Mr. Joe Lynch) the Irish Chemists' Society had gone from strength to strength. Replying, MR LYNCH said the Society was built on the loyalty and co-operation of its members which were always given in full measure. He announced that it was no longer a case of deciding where they would hold their four-day outing because of the demands on hotel and course facilities. Because of the demands on clubs it was becoming increasingly difficult to arrange half-day outings in the Dublin area. There would be an unofficial outing to Sutton on October 17, he said. Proposing "The Guests," MR M. MURPHY welcomed particularly the president of the Pharmaceutical Society of Ireland (Mr. M. L. Cashman) the president of the Irish Drug Association, (Mr. W. Gardner); the president of Elm Park (Mr. R. Tierney), and the captain (Mr. P. Gilroy). He extended a special welcome to their guests from the North. Replying, MR BOYD mentioned that the British Pharmaceutical Conference was being held in Belfast next year and said that the Golfing Association would be looking after that part. He appealed to as many as possible to attend the Conference. A vote of thanks to Elm Park Golf Club was proposed by MR C. COLLIS.

LOCAL OFFICERS

PHARMACEUTICAL SOCIETY BRANCHES

Norwich.—Secretary, R. T. Coghlan, Lynwood, The Croft, Old Costessey, Norwich, NOR 51X (telephone: Norwich 54701 (business); Costessey 2629 (private)). (Change of address).

Thanet.—Chairman, Mrs. J. Walters; Vice-chairman, M. Downard; Treasurer, E. P. Letchford; Secretary, R. W. Odd, 19 Gilbert Road, Ramsgate, Kent.

TOPICAL REFLECTIONS

By Xrayser

Diagnosis and Remedy

In the discussion following the address of the president of the Pharmaceutical Society (Mr. A. Howells) to the Conference at Birmingham, Mrs. E. Lucas Smith raised a point which must be troubling pharmacists (p. 337). Mr. Howells said that counter-prescribing would be permissible for a customer attending at the pharmacy, otherwise a prepacked remedy, for which a product licence and a manufacturer's licence had already been issued, would have to be supplied. His questioner asked what happened in the case of a sick child or elderly person unable to come to the pharmacy, and Mr. Howells repeated his statement relating to a ready-made licensed preparation. Few, he said, would wish to diagnose for a person not present in person, but a pharmacist was not forbidden to recommend a remedy. The Bill makes clear its reasons for that decision, but the president's reply seems to need clarification in some degree. How does one "diagnose" for a patient? The pharmacist is not trained in diagnosis. He may ask a few questions, the answers to which may prompt him to recommend medical consultation. He may feel, with no very sound basis of reason, that a simple medicine will give relief, but he should be sufficiently prudent to impress on his customer the need for seeking medical advice if the condition persists or returns. And that would apply to all medicines, even those prepacked under licence. Meanwhile, there is nothing to prevent a customer indulging in self-diagnosis, assisted by the advertising efforts of the manufacturer, and there is nothing to stop the newspaper, or television, or kindly neighbour prescribing freely. But what did the president mean when he said the pharmacist was not forbidden to recommend a "remedy?" Remedy is perhaps too strong a word for it implies cure—a description which is frowned upon—but, of course, one must make allowances for impromptu replies to questioners. I have no doubt that what the speaker had in mind was simply a "medicine." The pharmacist would do well not to read too much into the permission to counter-prescribe, and he must continue to act in his accustomed way in protecting the public from unwise use of medicines. He has ample opportunity in the daily round.

J. J. Hayton

It was with deep regret that I read in last week's issue of the passing of J. J. Hayton. His contributions over the years, both in prose and in verse, were unrivalled in pharmaceutical literature for their penetrating comment on current events. Few of the absurdities of our modern life escaped his notice, and I have spent some time in a pleasurable re-reading of some of his contributions. Perhaps I may be permitted to quote one verse only from "Lullabiotic." (*C. & D.*, Dec. 22, 1956, p. 683).

Rest, pretty one, rest.

Sweet, dreaming we do not suggest.

To send for the sandman would be idiotic—

Psychiatrists say it will make you neurotic!

—Dad's gone to the chemists to fetch your hypnotic.

So rest, pretty one, rest.

I never met J. J. Hayton, but he gave me a lot of pleasure.

Tetracycline Prices

The agreement between the Central N.H.S. (Chemist Contractors Committee and the Ministry of Health on the pricing of prescriptions for tetracycline preparations prescribed under their generic name is one more step in the Government's efforts to keep down costs, and it will not be the last. While the brand mentioned may be for the present the lowest priced brand "generally available," I have not yet come across it, and I have been supplying from another brand which was, at the time, the lowest priced. The decision will, no doubt, stimulate other manufacturers to reduce their prices and achieve general availability, but as a basis for buying and stock-control the system leaves a good deal to be desired.

METHEDRINE ADDICTION

A Commercial television programme

ALLEGATIONS that those responsible for "The World in Action" on commercial television had warned the manufacturers of Methedrine injection eighteen months ago about the possible misuse of Methedrine injection, were made in a programme dealing with Methedrine addicts on Granada Television on October 7. The programme began by showing two alleged Methedrine addicts who said "pills were no use to them now". The commentator declared that the problem first appeared about eighteen months ago and addicts claimed that if the Minister of Health knew the number of current addicts "it would give him ulcers." The commentator then described how Dr. Lionel James Wood, 68 Townsend Court, St. Johns Wood, had provided prescriptions for thirty-five and forty ampoules of Methedrine for fees of £5 on each occasion and, it was alleged, "he questioned but did not examine" those who asked for supplies.

A Pharmacist Reports

The sequence that followed concerned a North-west London pharmacist, MR. VINCENT HALL, who stated that prior to the opening of addiction clinics he dispensed 60,000 heroin tablets, 100-125 gm. cocaine powder and "4,000 Methedrine a month." The current figures were 15,000 heroin tablets, there had been a drop of 75 per cent. in the demand for cocaine but the demand for Methedrine had ballooned up to four to five times to 18-20,000 a month. The programme's commentator then stated that in Central London, a handful of chemists were dispensing 100,000 ampoules a month, 80 per cent. of which were manufactured by Burroughs Wellcome & Co. The next sequence showed a psychiatrist interviewing addicts in the crypt of St. Martin-in-the-Fields and later the commentator said that eighteen months ago "World in Action" informed Burroughs Wellcome & Co. that the situation was getting out of hand. "If action had been taken the present problem might not have arisen," but, it was claimed, manufacturers had shown no interest and their sales had quadrupled between March and September in Central London. Manufacturers had taken the view that they alone could not place curbs on Methedrine and they said they had to consider legitimate hospital needs. An anaesthetist was next interviewed who claimed there had been a decline in the use of Methedrine and the commentator calculated that London addicts used ten times more Methedrine than all hospitals. The addicts' search for something else had begun. A medical expert suggested that some addicts might attempt to use amphetamines in large quantities by mouth but there was also the possibility that they would "take tablets, crushed, dissolved in water and injected." Professor F. E. Camps (professor of forensic medicine, University of London), interviewed, thought the "prognosis gloomy." He also predicted that addicts would go back to ampoules

and there was a danger that they would use crushed tablets.

Then followed a discussion of the situation in Sweden where amphetamines were banned and 3 million "pills" had been seized during the last twelve months. An official of the Swedish National Health Board advocated that the production of amphetamines should be stopped all over the world. During "shots" of a B.M.A. Committee the commentator said the problem was a complex one with doctors insisting on their right to prescribe and the Ministry of Health relying on the voluntary agreements with manufacturers, and doctors. Then followed a sequence showing Mr. W. Deedes (a member of the Government's Advisory Committee on Drug Addiction) who stressed the need for a more flexible legal instru-

ment "to keep ourselves ahead rather than just behind." He said it took three years to "catch up" on heroin and six months on amphetamine.

An addict was heard claiming that someone had made money by selling ampoules of sterile water, costing six pence in a chemist's, for 30s. A doctor was also stated to have gone to a chemist in Piccadilly and told the chemist "to stock up on two drugs" (alternatives to Methedrine injection). The manufacturers had been warned and one had already been to the Ministry of Health.

[Burroughs Wellcome & Co., state that they were not specifically informed 18 months ago by "World in Action" about the addiction. When they became aware of the problem they told the Ministry of Health that they would co-operate in any suitable control. They added that such programmes could lead to more abuse.—EDITOR]

CHEMISTS' ACTION GROUP

Annual meeting in London

"FROM the letters appearing in THE CHEMIST AND DRUGGIST there is a hard core who are devoted to arguing against a better scale of remuneration for pharmacists. On this I believe we are an almost unique profession." So said MR. S. BLUM (chairman, Chemists' Action Group of Great Britain) during the course of his address to the Group's first annual meeting in London on October 6. The past year, said Mr. Blum, had been a notable one for pharmacy in general and for the C.A.G. in particular with the passage of two major Bills. Rural pharmacists were still in the iniquitous position whereby they were competing for dispensing with local doctors and the level of remuneration of both chemist contractors and hospital pharmacists remained pitifully low. C.A.G. hoped to have a number of candidates standing in the Local Pharmaceutical Committee elections when they took place in March, 1969. As a direct consequence of pressure from C.A.G., the Central N.H.S. (Chemist Contractors) Committee had agreed to advise and consult local Committees on any negotiations that were afoot with the Ministry. A copy of the Group's proposals for a new contract with the Minister of Health (C. & D., September 28, p. 308), had been sent to the Central N.H.S. (Chemist Contractors') Committee, which had been acknowledged and copies were sent also to all branches of the National Pharmaceutical Union of which only fifteen had so far replied. MR. I. H. WILLIAMS gave the secretary's report and MR. R. C. B. JONES, the treasurer's. It had been agreed that the annual membership fee would be £1. Afterwards two new members were elected to the executive committee—Messrs. C. Battie (*in absentia*) and F. Battersby. Before the meeting was opened for discussion MR. M. E. MILLWARD (a member of the executive) gave some pointers to the future rôle of pharmacists in the National Health Service, particularly in the light of proposals put forward in the Green Paper (C. & D., July 27, p. 72). The State, he

said, was taking more and more power to purchase drugs and there was growing interest in health centres in which pharmacies were included which would compete with private pharmacies. From past experience it was obvious that neither the Ministry nor industry would consult retail pharmacy when changes were being made. Pharmacists must look to the Pharmaceutical Society to act for them.

OVERSEAS NEWS

CYPRUS

Educational Requirements

PHARMACISTS in Cyprus were, until recently locally trained but since January 1966 no person may be registered as a pharmacist unless he holds a university degree in pharmacy (obtainable abroad) and also passes the examinations in forensic pharmacology. There are at present fifty-two pharmacists in the state health services and 122 in the private sector, states the annual report for 1967 of the Cypriot Ministry of Health.

UNITED STATES

Go-ahead for DMSO Trials

BROADER clinical studies with the experimental drug DMSO (dimethyl sulphoxide) are being allowed under a new policy statement by the United States Food and Drug Administration. Since December 1966, the F.D.A. has permitted investigational uses of DMSO only for serious conditions for which no satisfactory therapy was available. The new policy will permit studies with DMSO in treating such conditions as inflammation of the muscles, joints and ligaments, and large bruised areas. The chemical may be applied only to the skin for periods of fourteen days or less. Liver function and blood tests are required before, during, and after such a two-week study. Long-term studies will still be restricted to skin applications for such conditions as scleroderma, dermatomyositis, and as a vehicle for analgesics to treat intractable pain due to cancer.

PUBLIC ANALYSTS AND DRUG TESTING

Lancashire officer discusses limitations and capabilities

THERE are some aspects of drug testing which a public analyst is not equipped to undertake, writes Mr. A. C. Bushnell (Lancashire county analyst) in his report for 1967. As examples he cites the testing of insulin and particle-size analysis in large-volume injection solutions. "There is a great deal he can do, however, provided he be supplied with samples to analyse."

The White Paper of 1967 and the subsequent Medicines Bill both attempted to deal with the procedure for obtaining samples of potent drugs by a method that takes account of a sensitivity — "which the Pharmaceutical Society sometimes appears to convey to non-pharmacists" — over the implication that enforcement machinery applied from outside the profession of pharmacy implies a criticism of the competence of retail pharmacists. "It would be pleasant," writes Mr. Bushnell, "if equal concern were shown over the professional competence of public analysts, for there seems to be an implication that analyses of drugs may only properly be conducted in laboratories separate from those of the public analyst." In relation to the number of tableted drugs on the market, including some of the proprietary medicines, the range of drugs tested in the Lancashire county laboratory might appear inadequate, but in 1967, when the laboratory was asked to provide an exhibit on drug testing and an attempt was made to display the eighty or so tablets that contained even such a familiar drug as aspirin, it had been found impossible, despite the aid of local pharmacists and also a hospital dispenser, to obtain more than forty of those formulations.

There seemed to be arising a suggestion that the White Paper, the Medicines Bill and the Sainsbury report were means by which the pharmaceutical industry was putting its house in order, but were being used in manoeuvres connected with drug pricing under the National Health Service. The question of analysis might prove a fairly minor one, to be resolved when more pressing questions of foreign versus home-produced medicines for N.H.S. had been settled.

Sweetening Tablets

Mr. Bushnell also criticises the wording of the Artificial Sweeteners in Food Regulations, 1967, which he maintains would allow the manufacture of a perfectly legal mixed tablet of saccharin and cyclamate with only about one-third the sweetening power of a half-strength tablet of either ingredient separately. He further points out that several of the controlled materials in the Carcinogenic Substances Regulations are in common use in analysis, though the Regulations do not apply to public analysts' laboratories. "It might be a happy day when the protective parts of the Factories Acts are made to apply to the small laboratory."

During the year under review 589 samples (497 from the county) of drugs

had been submitted to his laboratories for examination. Twenty (seventeen county) had been reported on adversely. Six involved the omission of special cautionary words as specified in Schedule 7 of the Poisons Rules. "It is by no means uncommon for these obligatory cautions to be omitted or wrongly applied, especially when bulk has been broken in order to make up small

packages of drugs." About half the number of samples of tablets submitted as 4-mgm. perphenazine tablets appeared to have deteriorated, giving figures around half the declared strength. Correspondence with the manufacturers had elicited that three strengths of tablet were marketed, externally identical but with cores tinted for identification by the manufacturer. The pharmacist concerned had evidently transferred stock from a nearly empty bottle to a fuller one, thereby obtaining a mixed batch.

BRITISH VETERINARY CODEX

Amendments to 1965 Edition

THE Council of the Pharmaceutical Society of Great Britain has authorised the publication of the following amendments to the British Veterinary Codex 1965.

PART I

ACINITRAZOLE: Page 4. **Identification tests.** Replace test 1 by the following: Boil 1 mg. with 10 ml. of dilute sulphuric acid under a reflux condenser for 15 minutes, cool, add 1 ml. of a 2 per cent. w/v solution of sodium nitrite in water, cool in ice for 5 minutes, add 0.1 g. of sulphamic acid, allow to stand for 1 minute and add 1 ml. of a 0.4 per cent. w/v solution of N-(1-naphthyl) ethylenediamine hydrochloride in water; a violet colour is slowly produced.

AMINONITROTHIAZOLE: Page 16. **Identification tests.** Replace test 1 by the following: Dissolve 1 mg. in 10 ml. of dilute sulphuric acid, add 1 ml. of a 2 per cent. w/v solution of sodium nitrite in water, cool in ice for 5 minutes, add 0.1 g. of sulphamic acid, allow to stand for 1 minute and add 1 ml. of a 0.4 per cent. w/v solution of N-(1-naphthyl) ethylenediamine hydrochloride in water; a violet colour is slowly produced which deepens to intense blue and, finally, a deep blue precipitate is formed.

HALOXON: Page 180. **Molecular weight.** Amend to 415.6.

LEAD ARSENATE: Page 210. **Content of lead.** Amend "0.07360 g." to "0.07360 g."

CONCENTRATED VITAMIN D SOLUTION: Page 424. **Dose.** Amend "400 Units" to "4000 Units."

PART II

BLACK DISEASE VACCINE: Page 446. **Potency.** Line 4. Amend "21 days" to "28 days."

BLACKLEG VACCINE: Page 447. **First paragraph.** Lines 1-2. Delete "or a filtrate of such a culture, or

materials derived therefrom." Page 448. **Aluminium-treated Toxoid and Aluminium-treated Purified Toxoid.** Delete both paragraphs. **Potency.** Line 3. Amend "21 days" to "28 days." Line 4-5. Amend "not less than 10 days" to "10 to 14 days." Line 9. Amend "48 hours" to "72 hours." **Labelling.** Lines 5-6. Delete "Aluminium-treated Toxoid (A.T.T.), or Aluminium-treated Purified Toxoid (A.T.P.T.)."

BRANY VACCINE: Page 453. **Potency.** Line 1. After "rabbits" insert "each 3 to 6 months of age." Line 3. Amend "21 days" to "28 days." Line 4. Amend "not less than 10 days" to "10 to 14 days."

CLOSTRIDIUM WELCHII VACCINES: Page 462; **Potency.** Line 3. Amend "21 days" to "28 days." Line 4. Amend "not less than 10 days" to "10 to 14 days." Line 7. Amend "20 units" to "10 units." Line 8. Amend "7.5 units" to "5 units." Line 9. Amend "20 units" to "10 units" and "7.5 units" to "5 units."

TETANUS VACCINE: Page 515. **Potency.** Line 4. Amend "21 days" to "28 days." Line 5. Amend "not less than 10 days" to "10 to 14 days." Line 8. Amend "5 International Units" to "2.5 International Units." Line 9. Amend "10 International Units" to "7.5 International Units."

APPENDICES

APPENDIX 6: Page 717. **Dichlorophen, Veterinary.** Amend the footnote reference from "e" to "c."

APPENDIX 13: Page 743, Line 6. Amend "2 per cent." to "1 per cent."

APPENDIX 18: Pages 767 and 772. Delete the entry for "Hydroxocobalamin" and the cross-reference under "Cyanocobalamin." Pages 771-772. Delete the entry for "Hæmigran" and the cross-reference under "Iron-dextran Injection, Veterinary."

UNICHEM, LTD.

Monthly statements now by computer

WITH the presentation of the September statements to its customers a few days ago, the transition from the old system to "computerisation" by Unichem, Ltd., Crown House, Morden, Surrey, has been successfully concluded. Steps leading up to the changeover were outlined by Mr. Geoffrey White (managing director, Unichem, Ltd.), to members of the pharmaceutical Press in London on October 8 when he said that although the change had not been achieved "without incident" there had not been "the type of catastrophe that some firms have experienced" in such a changeover. That was attributable to the way in which both the company's own staff and that of the bureau concerned had been meticulous in their attention to detail, and assiduous in resolving the problems which arose.

For the operation, the company chose International Computing Services, Ltd., (until recently, I.C.T.), to maintain its sales ledger and prepare monthly statements of account for their 2,400

retail customers. The frequency of van deliveries gave rise to a large invoice flow every month, the total number of transactions throughout the company reaching a figure of almost 100,000 in a peak month — a type of operation ideally suited to the computer. Apart from the speed of operation, there were tangible advantages for the benefit of both the customer and the company alike, said Mr. White. The customer had the benefit of a statement with the two main product ranges, handled by the company, listed separately, and the invoices recorded in strict date order within the two groups irrespective of the order in which the invoices were dispatched to the retailer.

Many customers had found the new presentation simplified the "monthly chore of statement checking." The company gained by being able to include on each month's statement maximum number of invoices possible, while at the same time achieving certain financial economies. Almost at no extra cost,

management was provided with valuable up-to-date statistics, which previously could only be obtained, if at all, by costly and laborious methods and a variety of checking facilities.

Invoice preparation was not, as yet, part of the computer operation. The depôts forward the accounting copies of documents to head office, where, after a process of batch control, the transactions were recorded on punched paper tape using National Cash Register machines. At weekly intervals Unichem passed the punched information to the I.C.S.L. Bureau, where it was immediately vetted and stored pending production of the monthly statement.

The eventual transition from the old to the new system was spread over six months, with groups of customers being committed at intervals, after an initial two months of parallel running with 400 customers only being involved, to prove the validity of the initial programming.

LEGAL REPORTS

Permission to Continue

THE Judicial Committee of the Privy Council on October 7 granted Dr. John Petro permission to continue his appeal against the removal of his name from the Medical Register. He was out of time in lodging with the judicial committee copies of his case, and the General Medical Council asked that his appeal be dismissed for non-prosecution. Dr. Petro was allowed until October 18 to comply with the rule concerning lodging of papers and directed that the appeal be listed for hearing on October 28.

COMPANY NEWS

Previous year's figures in parentheses

GLAXO GROUP, LTD.—Sir Henry Lintott has been elected to the board.

BOWMANS CHEMICALS, LTD.—The board have turned down an offer by Glovers (Chemicals), Ltd. of about 16s. 9d. per share as "inadequate."

STEVENSON & HOWELL, LTD.—An interim dividend of 4½ per cent. (same) is declared. An offer for the company is being made by Associated British Maltsters, Ltd.

INNOXA (ENGLAND), LTD., have formed a new subsidiary company, Parfums de Beauté, Ltd., for the purpose of marketing in the United Kingdom and other areas high class French perfumes.

WILLIAM BLYTHE & CO., LTD.—The company have purchased the chemical manufacturing and merchanting business of J. S. Hanson at Low Moor, Bradford, previously carried on by Britannia Works Co., Ltd., a subsidiary of Ilford, Ltd.

LANKRO CHEMICALS, LTD.—The offer for sale by tender of 5s. shares Lankro Chemicals, Limited at a minimum price of 29s. (*C. & D.*, October 5, p. 326), attracted 2,320 applications for 4,228,700 shares. A striking price of 34s. has been fixed.

HORLICKS, LTD.—Profits, before tax, for year to end of March advanced to £1,288,252 (from £1,197,074) and after tax to £663,000 (£660,000). With certain exceptional items, including de-

valuation, the figure is raised to £798,000. Divided for year is 31½ per cent. (30 per cent.).

UNITED GLASS, LTD.—Sales for 28 weeks ended July 13 totalled £18.2m. (£16.98m in same period of 1967). There was a group loss on trading of £82,000 (loss £105,000) after taxation. A small profit is expected in the second half whereas in the same 1967 period there was a group loss of £291,000.

STANLEY WESTON GROUP LTD.—The Group has acquired control of Philadelphia Jeyes & Co., Ltd., Northampton, a private company trading as retail chemists from ten branches and two agricultural depôts in the South Midlands. Purchase price is £314,000—approximately two-thirds in Ordinary 2s. shares of Weston taken at 20s. per share and the balance in cash. Full information about the offer is to be included in the offer document to be issued shortly to holders of Arnold M. Gee, Ltd.

ROCKWARE GROUP, LTD.—The group have now acquired over 90 per cent. of both classes of the Preference and 94.5 per cent. of the Ordinary capital of Jackson Brothers (of Knottingley), Ltd. and will be acquiring the remaining shares. Mr. J. B. Livingston (vice-chairman and managing director, Rockware Glass, Ltd.), will join the Jackson board as chairman. Mr. D. G. Bailey (group planning director, Rockware), will also join Jackson Brothers board as a non-executive director. Mr. F. B. Jackson (managing director, Jackson Brothers), will join the board of Rockware Glass, Ltd.

EUCRYL GROUP, LTD.—The Group have extended their photographic colour processing interests, trading through the Photokraft Eucryl subsidiary at Rownhams, Southampton, by the acquisition of Kent Adams Photographics, Ltd. of Salisbury. Kent Adams' headquarters at Downton, Salisbury, will comprise the photo-finishing companies previously known as Photokraft Eucryl, Ltd., Stewarts Film Developing and Printing (of Gosport) and Portsmouth Photographic Processes (of Portsmouth) as well as Kent Adams Photographics, Ltd., previously based at Salisbury. Mr. S. M. Adams has remained on the board as managing director of the new company.

RECKITT & COLMAN HOLDINGS, LTD., and COLEMAN & CO., LTD.—The boards of Reckitt & Colman Holdings, Ltd., and of Coleman & Co., Ltd., have agreed on terms for Coleman to join the Reckitt & Colman group. The terms are: 80s. in cash for each Ordinary share of £1 of Coleman, or, at the option of Coleman shareholders in respect of some or all of their holdings, four Ordinary shares of 10s. each of Reckitt & Colman in exchange for every three Ordinary shares of £1 of Coleman. For each 6½ per cent. Cumulative Preference share of £1 of Coleman, 19s. in cash. On the offer becoming unconditional the board of Coleman will declare a special interim dividend of 4 per cent. Following the merger Coleman will continue to trade under its existing name and management.

E. C. DE WITT & CO., LTD., and POTTER & MOORE, LTD.—Negotiations which commenced earlier in the year between Potter & Moore, Ltd., Seymour Road, Leytonstone, London E.10, and E. C. De Witt & Co., Ltd., Cherry Orchard Road, East Croydon, for the acquisition by De Witt of the Potter & Moore business throughout the world (*C. & D.*, June 8, p. 511) were finalised on October 4, and control of Potter & Moore has now been handed over. E. C. De Witt & Co., Ltd., have confirmed their intention to maintain and promote the sales of Potter & Moore products on a world-wide basis. Potter & Moore will continue under the management of Mr. D. J. Baker, and over 98 per cent. of the staff have been retained. No future redundancies are anticipated.

MACARTHYS PHARMACEUTICALS, LTD.—Group profit for year ended April 30 was £187,040 before tax of £65,920. Amount available for Ordinary shareholders is £68,361. The results include Savory & Moore group for thirteen months. They exclude capital profits totalling £83,000 which after deduction of £17,500 for capital gains tax, have been credited direct to reserves. An amount of £35,207 cost of compensation for loss of office made to former directors of the Savory & Moore group, less tax, has been charged direct to reserves. By aggregating the profits of Macarthy's and Savory & Moore for their years ending in 1967 and making an adjustment for interest on the cash part of the purchase consideration results in a pre-tax profit of approximately £375,000 for that year. On that basis the profits, before tax for the year to April 30 are some £188,000 below those of the year before mainly due to three factors. The directors say more than half the reduction arose from a fall in gross margin principally caused by the writing off of stock deficiencies resulting from the closures of certain shops and depôts and by a decision to bring all stock valuations within the enlarged group broadly on the same basis. The second factor was a loss of £25,000 incurred by the pharmaceutical manufacturing company. That company, for the first six months trading, had surplus capacity which has become fully utilised in the period following the merger. Both those factors are non-recurring. The third factor was the expense and disruption caused by the respective programmes of modernisation and closure. Uneconomical operations formerly conducted by Savory & Moore, comprising four wholesale depôts, a number of retail shops and two small manufacturing operations have been closed down or sold. The current year has started well. The major companies within the group have all recorded increases in sales. The level of overheads is being well controlled and the prospects for the current year are therefore encouraging. As the reduction in last year's profits was substantial caused by non-recurring factors and in view of the encouraging prospects for the current year, the board recommends a maintained final dividend of 14 per cent. making a total of 20 per cent. for the year.

BUSINESS CHANGES

MR. R. S. SMETHURST, M.P.S., has opened a pharmacy at 119 South Lambeth Road, London, S.W.8.

DAVID PHARMACEUTICALS, LTD., have acquired the pharmacy of **Mr. C. E. G. Cullimore, M.P.S.**, 54 Glengall Road, Edgware, Middlesex.

MR. G. WALKER, B.Pharm., M.P.S., has acquired the Crescent Pharmacy, Spalding, Lincs, from **Mr. A. Spencer, M.P.S.**, who has retired.

DURBIN & MCBRYDE, LTD., North End, Croydon, Surrey, have closed because of the retirement of the chairman and managing director, **Mr. W. O. McBryde, M.P.S.**

BELLAIR COSMETICS, LTD., have appointed **Mr. L. Walker** their international sales executive. The company expects to expand in the South of England and in the export markets.

BOOTS, LTD., are to begin trading at the Whitgift Centre, Croydon on October 17. They will be the first of almost 200 businesses to move into the development. The new premises, comprising 18,000 sq. ft., will be more than three times the size of their Northend store which will then be closed down.

BAYER CHEMICALS, LTD., is the changed title of **J. M. Steel & Co., Ltd.**, as from October 1. The company besides marketing the chemicals of **Farbenfabriken Bayer** chemicals division will also have responsibility for the marketing of activated carbons from **Lurgi Gesellschaft für Wärme- und Chemotechnik GmbH, Frankfurt**, and the cellulose ethers and esters from **Wolff & Co., Walsrode**, the latter company being part of the Bayer group since January. In the interests of rationalisation, the distribution agreements with **British Celanese, Ltd.**, for cellulose ethers and **Albright & Wilson (Manufacturing), Ltd.**, for carbon tetrachloride have been discontinued.

APPOINTMENTS

Board

BERK, LTD.—Messrs. **J. D. Presland** and **P. R. Grossey** have been appointed to the board.

Executives

BOOTS, LTD. have appointed **Mr. J. I. Thomson** their Scottish area director. **Mr. Thomson** has been with the company for thirty-three years and continues as territorial general manager for the Edinburgh and South-east district of Scotland. In his new appoint-

ment he succeeds **Mr. G. W. Telford** who has retired after more than forty-five years with the company. **Mr. Telford** was also a director of **Boots the Chemists, Ltd.**, and a member of the Standing Pharmaceutical Advisory Committee for Scotland.

MALLORY BATTERIES, LTD., have appointed **Mr. C. Cartledge** their London area manager.

BDH CHEMICALS, LTD., have appointed **Mr. D. Block, B. Tech.** market research manager, and **Mr. W. Ninniss, M.A.**, market research officer.

PERSONALITIES

MR. R. S. ANDERSON, F.P.S., Edinburgh, has been awarded a place in the Arts Council's theatre administrative training scheme and his next six months will be spent at the Phoenix Theatre, Leicester. **Mr. Anderson** has done some freelance lighting design, stage directed **Veronic Bruce's** ballet festival in Morayshire, and toured with **Edinburgh Ballet Theatre**. After Leicester he will spend a further six months doing shorter periods in several different theatres. "The purpose of the Art Council's scheme," he says, "is to produce administrators for the various civic theatres that are coming into being all over the country."

OVERSEAS VISITS

MR. PETER CORKER (export manager, **Scott & Bowne, Ltd.**), left London on October 5 for East Africa to visit the company's agents in Kenya, Uganda, Tanzania and Ethiopia.

DEATHS

CROWE.—Suddenly on September 19, **Dr. Louis Charles Crowe**, 4 Lytton Gardens, Welwyn Garden City, aged forty. **Dr. Crowe** was head of the department of toxicology in the research and development division of **Riker Laboratories, Tewin Road, Welwyn Garden City**. He was born in Ireland and obtained a degree in biochemistry at **University College, Dublin** in 1949 and he qualified there in medicine in 1955. He has held various appointments in pathology in Ireland and in England including four years at the **Sefton General Hospital, Liverpool**.

GRAY.—On September 10, **Mr. Gordon Gray, M.P.S.**, **Oakfield Grange, Parkgate Road, Great Mollington, Chester, Cheshire**. **Mr. Gray** qualified in 1921.

HARPER.—On October 3, **Matthew McAlpine Harper**, 4 Craighall Terrace, Musselburgh, Midlothian. **Mr. Harper** registered as a chemist and druggist in 1908 but retired from membership of the Society some years ago. He was for many years a partner in the pharmacy of **Harley and Harper**, 121 High Street, Musselburgh.

HUGHES.—On September 23, **Mr. John Hughes, M.P.S.**, **Tawelfryn, Llandysul, Cards**. **Mr. Hughes** qualified in 1923.

PAIN.—On September 11, **Mr. Reginald Arthur Pain, M.P.S.**, 1 Lower Road, Chorley Wood, Herts. **Mr. Pain** qualified in 1923.

RUDDOCK.—On September 17, **Mr. Alfred Edward Harris Ruddock, M.P.S.**, 126 Barnsole Road, Gillingham, Kent. **Mr. Ruddock** qualified in 1920.

MANUFACTURERS' ACTIVITIES

Supplies for Olympic Team.—Supplies of **pHisoHex** antibacterial skin cleanser have been made available by the **BAYER PRODUCTS Co.**, **Winthrop House, Surbiton, Surrey**, for the use of the **British Olympic Team** in **Mexico City**. The company have issued instructions to the team on the use of the product as a protection against skin infection in cases of cuts, abrasions, boils and rashes—**Excedrin** analgesic tablets and **Supavite** vitamin capsules have been selected to be available for Britain's athletes at the **Mexico Olympics**. Within minutes of receiving the official request, says the brand manager of **BRISTOL-MYERS Co., LTD.**, 14 Stratford Place, London, W.1, the company had obtained the required quantities and ensured that they were safely on their way Point-of-sale display material is being designed by the company for use by retailers who may wish to tie in their displays with the Games, which are being held October 12-27.—**Ellimans** rub and **Ellimans** foot cream were recently taken to **Mexico City** by the chief physiotherapist to **Great Britain's** team, **ELLIMAN SONS & Co., LTD.**, **Slough, Bucks.**, have supplied their products to the **British** team at previous games.—A **Philips Infraphil** health lamp being used in **Mexico** to treat **British** athletes at the Games, has already travelled well over 40,000 miles on similar missions to **Olympic** and **Commonwealth Games** in **Tokyo, Jamaica** and **France**.—**PHILIPS ELECTRICAL, LTD.**, **Shaftesbury Avenue, London, W.C.2.**, say the lamp in the past has proved so successful that official physiotherapists to the **British Olympic** committee are augmenting it with two more for the present Games.



SKI FOR TWO COMPETITION: The first prizewinner in the "Win a ski-ing holiday for two" (theme of a trade competition recently held for the **House of Nivea** beauty treatment cream **Serene**), was **Mrs. S. Baxter** of **Bucklersbury Pharmacy, Bucklersbury House, London, E.C.4.** **Sheila**, who has only recently married, decided to take cash! Her cheque for £200 was presented by **Mr. P. Pritlove** (marketing group manager, **Southalls (Sales), Ltd.**). Second prizes of £50 were won by **Mr. F. Broad**, **Frank Broad (Hassocks), Ltd.**, **Hassocks**, and **Mrs. B. Lacey**, **Timothy Whites & Taylors, Ltd.**, **Folkestone, Kent**. Third prizes of £25 by **Miss J. Syer**, **Thos. Perkin, Ltd.**, **Tamworth, Staffs.**; **Miss D. Pickles**, **W. Wright Hudson (Wibsey), Ltd.**, **Bradford**; and **J. Whiting, H. Burnett Chemists, Hythe, Kent**.



Mr. J. I. Thomson

Mr. G. W. Telford

Family Day at Factory.—Merck Sharp & Dohme, Ltd., held a Family Day at their Hoddesdon site on September 17 when all members of the staff invited their relatives to see the pharmaceutical plant, a large part of which was completed within the past two years. Work was re-arranged so that processes were in operation in most areas up to 9.30 p.m. and about 600 visitors were able to see many of the company's products being packed.

Medical Supplies Gift to War Victims.—Close on £50,000 worth of medical supplies to aid victims of the Nigerian-Biafran war have been given by Eli Lilly & Co. The goods included tetanus toxoid vaccine, insulin, analgesics, antibiotics, amoebicidal drugs, and aspirin and will be distributed in the war-torn areas by the Catholic Medical Mission Board, Inc., the Inter-church Medical Assistance, Inc. and the American Red Cross.

Sponsoring Lone Voyage.—Glaxo Laboratories (Ireland), Ltd., are to sponsor a voyage by Mr. Bill Verity, the American-born sailor who broke world records in 1966 with a 65-day Atlantic crossing from Florida to co. Kerry, Republic of Ireland, and who is now attempting to re-create the voyage of St. Brendan the Navigator by sailing from Ireland to Florida in a replica of a sixth century craft. On his voyage Mr. Verity's major food will be Complan.

TRADE NOTES

Additional Size.—Imperial Chemical Industries, Ltd., Alderley House, Alderley Park, Macclesfield, Cheshire are introducing on October 16 a 100 mil. pack of Icipen syrup.

Added to List.—T. J. Sas & Son, Ltd., Victoria House, Vernon Place, London, W.C.1, have added emetine hydrochloride B.P. to their list. Prices and data are available on application.

Avocado Pear Oil.—The address of A. G. Hersom, the supplier of avocado pear oil is 123 Richmond Road, Kingston-on-Thames, Surrey. (Corrected note.)

Home Brewing.—Brew-it-Yourself, Ltd., 135 Upper Street, London, N.1, offer for home brewing and winemaking a comprehensive range of dried berries, fruits, flowers, and herbs, compounds, extracts, grains, yeasts, nutrients and equipment.

New Stand.—Philips Electrical, Ltd., Century House, Shaftesbury Avenue, London, W.C.2, have discontinued the existing stand HK4115 for Philips hair drier HP4607 and replaced it by a new stand HP4906 at a lower suggested selling price (£2 10s. 6d.).

Tablet containers.—Macdonald of Manchester, Portland Mill, Ashton-under-Lyne, Lancs., invited pharmacists in retail practice to investigate the advantages of the Coplastic tablet bottles that are "identical with glass to the eye" but only one-sixth of the weight, and moulded in polystyrene. They also have the advantage of being cheaper than the traditional containers.

Now National.—Infamark, Ltd., 42 Upper Berkeley Street, London, W.1, state that their Mother-to-be box ser-

A New Development Laboratory.

The opening ceremony of the first development laboratory to be opened by the Upjohn Company outside North America was performed at Fleming Way, Crawley, on October 1. Lord Shawcross (chairman, Upjohn, Ltd.) introducing Sir Hedley Atkins (president, Royal College of Surgeons) said that in the past five years the Upjohn company had spent \$100 million on research. Its expenditure on that activity was constantly increasing and the allocation for 1968 was \$33m. SIR HEDLEY said that the pharmaceutical industry had been almost entirely responsible for eradicating infectious diseases in the United Kingdom. It had also benefited the country financially both through savings on cost of treating, for example, tuberculosis patients and through its contribution to exports. If all industries had expanded at the same rate as the pharmaceutical industry the country would have no economic problems. It was essential, said Sir Hedley, that the industry should advertise. To curtail advertising punitively in pursuit of a theoretical doctrine would be extremely improvident. DR. E. G. UPJOHN (chairman, Upjohn, Inc.) reviewed his company's world-wide activities and paid tribute to the staff of the British subsidiary. The new laboratory, under its director Dr. T. C. Ashner, has been in operation since January, 1968.

vice (see Supplement to C. & D., April 27, p. 26) is "going national" and will be available to every expectant mother throughout the country. Distribution of the boxes and control cards is being handled by the branches of Vestric, Ltd.

Additional Details.—Arthur H. Cox & Co., Ltd., Brighton, BN2 3QJ, have asked us to point out that their announcement elsewhere in this issue should indicate a minimum opening order for the Cox Chemist Own Brand Service of 1 gross assorted lines and repeat orders of 3 dozen minimum. Also that the cost of the nasal spray 15 mil. should be 2s. 1-7d. each and that the antitussive linctus 2 oz. 2s. 8-2d. each.

Addition to the Series.—Latest in the Family Doctor series of booklets is "So You are Going into Hospital." It sets out to allay patients' fears and is amusingly illustrated. Publishers are the British Medical Association, Family Doctor House, 47 Chalton Street, N.W.1. (available through the National Pharmaceutical Union, 321 Chase Road, London, N.14, to members.)

Retail Prices.—Procter & Gamble, Ltd., P.O. Box 1EE, Gosforth, Newcastle upon Tyne, have decided that it is now in the interests of the consumer, the retail trade and the company to issue recommended prices for their products. They state they believe it to be confusing to the trade, in today's conditions, to have the major manufacturers in the same industry acting differently. The company also recognise that recommended retail prices will give protection to the trade in conforming

with the Trade Descriptions Act, 1968

Restricted to Hospitals.—CIBA Laboratories, Ltd., Horsham, Sussex announce that the supply of Ritalin (methylphenidate) for injection is now restricted to hospitals. The decision was a precautionary measure, to forestall any possible misuse of the preparation following the similar limitation announced concerning the supply of methyl amphetamine injections. The company state discussions are in progress with the Minister of Health to determine arrangements for supply of Ritalin ampoules to legitimate user outside the hospital service. The company also announce that stocks of the preparations in excess of requirement will be credited, in full, if returned by October 31.

Bonus Offers

LENBROOK LABORATORIES, LTD., Thane Road West, Nottingham. Dulsil Twelve invoiced as ten.

HILL'S PHARMACEUTICALS, LTD Spring Bank Works, Nelson, Lancs Hill's adult bronchial balsam, Hill junior balsam and Hill's balsam pastilles. Five per cent. discount on seventy-two, ten per cent. on 144 and fifteen per cent. on 432 assorted Ordered direct.

IMPERIAL CHEMICAL INDUSTRIES LTD. Alderley House, Alderley Park, Macclesfield, Cheshire. Icipen syrup 100 mil. Thirty-six invoiced at 6s. 10 each; seventy-two invoiced at 6s. 8 each.

POTTER AND CLARK, LTD., P.O. Box No. 3, Cherry Orchard Road, East Croydon. Potters Catarrh pastilles. 34 invoiced as 288; 168 invoiced as 14 eighty-one invoiced as seventy-two thirty-nine invoiced as thirty-six, on October 31.

TONI CO., 101 Syon Lane, Isleworth Middlesex. All hair colourants and Focus hairspray. Extra 10 per cent discount on orders of four dozen or more (assorted).

Competitions

INTERNATIONAL CHEMICAL CO., LTD., Chertsey Street, London, W.1. Outright winner of recent Anadin "Find the Island" competition was Mr. A. Smithies of 36 Town Hall Street, Sowerby Bridge, Yorks, who has won a holiday for two in Malta. Consolation prizes the form of sets of Waterford crystal glass.



Mr. Smithies receives from Mr. W. Prentice (divisional manager, International Chemical Co., Ltd.) plane and hotel reservations for a holiday in Malta for himself and his wife.

were awarded to Messrs. G. A. Fox M.P. Dunstable, Beds; H. G. Marley, H. S. Marley & Co., Egham, Surrey; J. D. Robinson, Albans, Herts; M. G. Flower, M.P. Oundle, Peterborough; and Mrs. L. Whitfield, Glenrothes, Fife.

NEW PRODUCTS AND PACKS

PHARMACEUTICAL SPECIALITIES

For Children.—To facilitate the treatment of children, Roussel Laboratories, Ltd., Columbus House, Wembley Park, Middlesex, announce the introduction of Cidomycin injectable (paediatric). Each vial contains 20 mgm. of Cidomycin, gentamicin sulphate. Packs are boxes of six.

Act on Respiratory Centre.—The pharmaceuticals division of Geigy (U.K.), Ltd., Hurdfield Industrial Estate, Macclesfield, Cheshire, have introduced Micoren capsules. The capsules are indicated whenever poor or inadequate pulmonary function is present, particularly in chronic bronchitis. Through their action on the respiratory centre Micoren capsules increase depth of respiration, thereby enabling the patient to breathe more effectively. Packs are containers of 120, 480, and 1,000.

Rectal Ointment and Suppositories.—Allen & Hanburys, Ltd., Bethnal Green, London, E.2 have introduced two new Propaderm preparations combining the advantages of beclomethasone dipropionate with the local analgesic lignocaine for the rapid, effective relief of haemorrhoids and other painful, inflammatory or irritative anogenital conditions. Propaderm-L rectal ointment contains 0.025 per cent. beclomethasone dipropionate and 5 per cent. lignocaine in tubes of 15 gm. complete with special nozzle. Propaderm-L suppositories contain beclomethasone dipropionate 0.5 mgm (0.025 per cent.) and lignocaine 50 mg. (2.5 per cent.) in boxes of ten suppositories.

VETERINARY SPECIALITIES

For Piglets.—Amdal Division, Abbott Laboratories, Ltd., Queenborough, Kent have introduced Gen-Gro doser for the prevention and treatment of neonatal scours in piglets. The preparation contains sodium arsanilate 10 mgm. per mil. in a bright green viscous solution. The company states that sodium arsanilate shows minimal bacterial or bacteriostatic activity *in vitro* but *in vivo* brings about symptomatic cure in many cases of neo-natal scours. The mode of action is not understood but it is quite unlike that of antibiotics. The pack is 100 mil. bottle with dispenser.

COSMETICS AND TOILETRIES

Aerosols With Advantages.—The two new aerosol products shown in the illustration are by Buller Ansell & Co., Ltd., 8 Aldsworth Parade, Goring-

by-Sea, Sussex. Dry n' Sheen (7s. 11d.) is understood to have only one competitor in Britain (at more than twice the price). Misty Sheen (7s. 11d.) has a U.S. type nozzle delivering a diffused spray that makes the product suitable for daily use.

A New Look.—The Forhans toothpaste pack has been completely redesigned by the manufacturers, Scott



& Bowne, Ltd., 50 Upper Brook Street, London, W.1. In red and white the pack has a certain bright crispness for maximum consumer appeal on crowded shelves. The pack continues to emphasise the care of the gums as well as the teeth.

Body Oil and Mist.—Two new *Mémoire Chérie* products of Elizabeth Arden, Ltd., 25 Old Bond Street, London, W.1, are a perfume oil (44s. 6d.), in gold lightweight aerosol container, for spraying all over the body before or after bathing or showering, and a perfume mist (54s. 6d.) in mauve aerosol case. The mist is a lighter version of the *Mémoire Chérie* perfume, but more concentrated than Flower Mist.

Two Shampoos.—Following the success of Polyherb shampoo, the Poly cosmetics division of the Lambert Chemical Co., Chestnut Avenue, Eastleigh, Hants, announce the introduc-



tion of two new herbal shampoos; Polyherb "Plus" especially made for "teens and twenties with their problem of excessively greasy hair," and Polyherb "Rainsoft" shampoo a "gentle formula" for damaged and dry hair. Packs are bottles (5s. 1d.) and sachets (1s. 1d.).

Liquid Cream Foundation.—A new product Re-Nutriv liquid creme foundation (168s.) by Estée Lauder Cosmetics, Ltd., 18 Davies Street, London, W.1, covers flaws and gives "the intense

glow of perfect health." The new make-up has been hand-blended to a soufflé consistency, claimed easy to control with the fingertips. There are six shades, beige bisque, desert beige, Mayfair blush, Lido sun, honey blush and café tan. To wear with the new foundation, there is Re-Nutriv hand-sifted face powder. Both products are presented in frosted glass jars, with golden baroque-sculptured caps.

Super Moisturising Cleanser.—Harriet Hubbard Ayer, 65 Grosvenor Street, London, W.1, have launched a new cleanser "super moisturising cleanser" that is stated to dissolve make-up and dirt with remarkable speed, and also act as a moisturiser. It is said to



remove eye make-up including waterproof mascara, without making eyes smart. Because of the moisturising elements contained in its formula it leaves the skin soft and silky, yet without any trace of grease. Distributed by Roberts Windsor, Ltd., Victoria Works, Colwick, Nottingham.

Autumn Collection.—The shot silks autumn collection of lipsticks by Nivea have been introduced by Smith & Nephew toiletries division, Bessemer Road, Welwyn Garden City. Described as "spun with gold," the collection comprises three shades: "Gold 'n fire," "Gold 'n pink," "Gold 'n amber." Each presented in a black and gold case (7s. 6d.). The lipsticks are supplied in a one dozen counter unit each complete with testers and a special showcard incorporating a gold-orange fabric for "added impact and drama at point of sale."

"Romantic" Look.—To meet the autumn fashions ("flouncy frills, billowing sleeves and ruffled, lacy blouses") Coty (England), Ltd., Great West Road, Brentford, Middlesex, are providing a series of lipsticks in warm reds, skin products to give beige complexions, and greeny-grey eye cosmetics "with lots of shine." Among the lipsticks there are three new reds (New Tango, Paso Doble, and Red Crescendo). New products for the face are "Moisture Veil" in two new shades in Secret make-up liquid foundation: Autumn Beige (a soft golden beige) and Honey Bronze (a delicate, milky mocha); and a sage-grey eyeshadow powder and new eyeshine.



BRANCH EVENTS

WEMBLEY AND W. MIDDLESEX

Annual Dinner

SOME 100 members of Wembley and West Middlesex Chemists' Association and their friends gathered at the Oldfield hotel, Greenford, on October 2 for the Association's twenty-second annual dinner and dance. Welcoming the principal guest (Miss M. A. Burr), the chairman (MR. E. C. MEREDITH) said that although the Pharmaceutical Society had its critics even within its own ranks it had never been held in higher esteem than it was today. Miss Burr served on five committees of the Council and was chairman of its Benevolent Fund and of the Birdsgrove House Fund. Replying, MISS BURR said that the most important relationship which the Council had with the membership was that of unity. Although she was herself in general retail practice she was in close touch with pharmacists in eleven hospitals. She saw their difficulties and felt it was most important to maintain unity. Referring to the Benevolent Committee, Miss Burr said that the Society was one of the few professional bodies to have a benevolent fund written into its original charter so although the Fund was administered as a charity it was an obligation on the Society's Council. She recommended any member who might be in the vicinity of Birdsgrove House to visit it. Miss Burr said on the subject of new medicines legislation that for the past ten years the Ministry had been obtaining advice from the Society. Whatever the outcome it could be felt that for once in a lifetime the views of the Society had been heard. "The Guests" was proposed by MR. F. S. EDWARDS (chairman, West Middlesex Branch) and responded to by MR. S. J. TURNER (West Metropolitan Branch). A raffle held during the dancing that followed the dinner realised £21 for the Society's Benevolent Fund.

HARROW

A Sherry Evening

FOR their opening meeting of the current session, the Harrow Branch of the Pharmaceutical Society, on October 1, heard a talk on sherry given by Mr. T. W. Thornton (John Harvey and Sons, Ltd.). Sherry, said Mr. Thornton, came only from Spain and in fact only from a defined area of that country, which was in the South-west, centred on the town of Jerez de la Frontera. Wines like sherry coming from other countries now had to bear the country of origin on the label in association with the word "sherry" if the latter was used. He added that Spanish sherry was made from the juices of white grapes which grew on very poor soil. Original attempts at shipping the wine to England were unsuccessful but in the early fifteenth century it was found that by adding a small proportion of brandy the keeping properties were improved. Hence the sherry sold in Britain was a "fortified" wine and was quite distinct from that usually avail-

able in the cafes in Spain. Mr. Thornton described the two main types of sherry — fino and oloroso. Fino developed naturally for a number of years growing "flor" — a kind of yeast, when ready to drink was pale and dry. Oloroso had the growth of "flor" artificially stopped by addition of a larger quantity of spirit; the resulting sherry was richer and fuller to taste than the dry though not necessarily sweeter. Explaining the method of blending, he said the young wines entered the "solera" system which ensured a continuity of style. Sherry was taken from the lowest of three or four tiers of butts to be replaced by wine from the butt above. Therefore there could be no such thing as a vintage sherry. During the talk members were able to sample three kinds of the company's sherries.

ENFIELD

Social Event Revived

FIRST dinner and dance to be held by Enfield Chemists' Association for twelve years attracted almost a hundred members and guests on October 3. The dinner was a popular substitute for the three-yearly supper dances held during the intervening period. Toast to the Pharmaceutical Society was proposed by DR. H. R. SHEPHERD (a local general practitioner) who spoke of the debt he owed both to local pharmacist and the pharmaceutical industry. Replying, MR. D. N. SHARPE (a member of Council) referred to the close co-operation necessary between the medical and pharmaceutical professions in combating the misuse of drugs. Toast to the ladies and guests was proposed by the Association president (MR. J. I. TOMBS) and MR. I. STEWART (branch general manager, May, Roberts & Co. Ltd.), replied.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

Pharmacists and Alkaloids

SIR,—On catching up with my reading after the two recent conferences I have noted with great interest the annotation on alkaloids by M. Schofield¹ which was especially appropriate in view of the paper by Prof. G. R. Patterson at the meeting of the British Society for the History of Pharmacy at the Birmingham Conference. Derosne, mentioned by Schofield, was also a pharmacist and J. B. Dumas spent much of his early career in pharmacy and remained closely associated with it throughout his long and distinguished career. Urdang² credits the pharmacist K. F. W. Meissner, not Dumas, with the coining of the name "alkaloid" (in 1818). He also gave P. L. Geiger (a pharmacist) as the discoverer of atropine and aconitine (both with Hesse — a non pharmacist). Other examples of alkaloids discovered by pharmacists quoted by Urdang are papaverine (G. F. Merck), hyoscyne (E. A. Schmidt), pomegranate alkaloids (C. J. Tanret). Lawall³ gave the following examples:— solanine (Desfosses), delphinine (Feneulle and Lassoigne). He also gave Brandes as the discoverer of atropine. It seems that Brandes was the first person to isolate it and Geiger and Hesse to prepare it in a pure state. Nicotine was isolated by the famous French pharmacist N. L. Vauquelin who also took part in the isolation of asparagine. Kremers and Urdang⁴ in their history gave the examples of A. Niemann isolating cocaine, F. F. Mayer inventing the test for alkaloids which bears his name, and E. Jahns synthesising arecoline. All were pharmacists. British pharmacists have also played their part in the discovery of alkaloids but this has received little publicity. A. W. Gerrard, whilst chief pharmacist to University College Hospital, isolated pilocarpine in 1871. It was wrongly attributed to Hardy by Goodman & Gilman⁵ in their earlier editions. I pointed out to the authors that Hardy himself had con-

ceded priority to Gerrard although both had made the isolation in the same year. Later editions of the book have stated that Gerrard and Hardy independently isolated the alkaloid in 1871. In 1906 the pharmacist F. F. Carr together with the chemist Barger isolated ergotoxine. Stoll who did so much work on the ergot alkaloids, although not a pharmacist, made the most of his discoveries while he was head of the pharmaceutical laboratories of Sandoz, Ltd., the well-known Swiss pharmaceutical company. The pharmacist T. A. Henry was a world authority on alkaloids and wrote a well-known book on the subject. British pharmacists are still working in the field as we have seen in the series of papers about the isolation of the *Mitragyna* alkaloids from Professor Beckett and his colleagues at Chelsea. Urdang stated that "the isolation of alkaloids has been for decades almost a pharmaceutical family affair" a comment which seems well justified.

T. D. WHITTE,
Harpenden

References

1. Schofield, M. C. & D., 1968, 190, 104.
2. Urdang, G. *Pharmacy's Part in Society*. American Institute of the History of Pharmacy, Madison, Wisconsin, 1946, p. 38.
3. Lawall, C. *Four Thousand Years of Pharmacy*, New York, p. 454.
4. Kremers & Urdang's *History of Pharmacy* 3rd Ed. Revised by Glenn Sonneck. J. B. Lippincott, Philadelphia & Montreal, pp. 319-321.
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Appreciated

I HAVE found the comprehensive price list of great value, particularly during the recent months, when prices were somewhat haywire.—C.S.C.

Poser Solution

ITEM ordered on prescription that was illustrated as last week's "poser" was "Ung. Ichthyol. dr. 2".

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN A COMMONWEALTH CONFERENCE

Public relations advisory group

SUPPORT from many countries for the proposal suggesting a Commonwealth Pharmaceutical Conference in June or July 1969 was reported. Fuller details were to be presented to the next meeting of the Council.

At the meeting THE PRESIDENT (Mr. A. Howells) extended warm welcome to Mr. Charles McGibben, a member of the Council of the Pharmaceutical Society of Victoria, Australia. MR. MCGIBBEN conveyed the greetings of the Victoria Council to the meeting, and said that he appreciated the privilege of being able to attend the proceedings. He welcomed the fact that Mr. Lewis, the secretary and Registrar, was proposing to visit Australia, it was felt that the problems existing between Australia and Great Britain and particularly between Victoria and Great Britain might be amicably settled through personal discussion and communication.

It was reported that the President had appointed the following four members of Council to be a public relations advisory group until May 1969; Mr. W. A. Beanland, Mrs. E. J. M. Leigh, Mr. D. N. Sharpe and Mr. D. E. Sparschott. It was proposed that the group should meet occasionally and informally to discuss with the Press Officer, a public relations policy for the Society.

The minutes of the meeting of the Education Committee were presented by MR. W. H. DARLING (vice-president) who had taken the chair. The British Pharmaceutical Students' Association had proposed that up to six months pregraduation training should be recognised in the case of students referred after the second or third year examinations. The Committee decided that the proposal should be considered as part of the whole question of control of postgraduate practical training.

Students

To increase the interest of students in both the Society and the B.P.S.A., it was suggested that two speakers, one from each body, should address meetings of students in each school of pharmacy. It was resolved that the scheme be referred for discussion and advice to the next meeting of heads of schools.

It was agreed that examinations which might be a part of new reciprocity agreements, should be based on the knowledge of the law and ethics of pharmacy in Great Britain and of the National Health Service and related matters. It was also agreed that the examination should be conducted in English and that applicants should sit the examination in Britain. It was recommended that a detailed syllabus and specimen examination papers be prepared for further discussion.

It was recommended that the principle be accepted that after the termination of the Pharmaceutical Chemist qualifying examination, the register of students should be discontinued. It was also recommended that the effects of that decision should be investigated and reported upon.

It was reported that arrangements had been made for the 1969 teachers' vacation course to be held in the School of Pharmacy, Brunswick Square, London, from April 8 to April 11.

The following research scholars had submitted to the library a copy of the thesis on which they had been awarded the degree of Doctor of Philosophy: Dr. D. A. G. Ismail, "Pyrido (4,3,-d) pyrimidines;" Dr. P. R. E. Norton, "Barbiturate dependence in the rat." The minutes were received and the recommendations adopted.

The minutes of a meeting of the Benevolent Fund Committee were presented by MISS M. A. BURR, chairman. It was recommended that Christmas gifts be made to annuitants and those receiving grants from the Benevolent Fund and to dependent children. Gifts to those who had received

special grants from the fund during the year would be made at the chairman's discretion. Another recommendation was that a donation of £10 10s. 0d., be made to Reed's School and to the Royal Wanstead School.

The receipt of a legacy of £100 from the estate of the late W. Talvan Rees was reported.

Grants had been made or were being recommended for thirteen widows, eleven members, three dependents of members, and in respect of four orphans. The minutes were received and the recommendations adopted.

Future of Publications

The minutes of the meeting of the Publications Committee, presented by THE PRESIDENT referred to the text of a letter dealing with the future of the *British Pharmaceutical Codex* and the *British Veterinary Codex* in relation to the provisions of the Medicines Bill. It was agreed that the letter should be sent to the Ministry of Health.

A suggestion was considered that a new booklet should be prepared describing the history and activities of the Society. It was agreed that detailed proposals for such a booklet should be prepared and discussed at the Committee's next meeting. The minutes were received and the recommendations adopted.

MR. J. C. BLOOMFIELD presented the minutes of the meeting of the Organisation Committee. It was reported that a preliminary announcement about the regional conference at Exeter University on November 17 had been sent to branch secretaries within the region. Following suggestion from branch secretaries it was recommended, the morning session should consist of short papers presented by chairmen of some of the Council's standing committees and that the afternoon session should be devoted to discussions on these papers and of questions relating to the Society's work.

It was recommended that prices of tickets for the 29th International Congress of Pharmaceutical Sciences to be held in London in 1969 should be £18 for associate members and £21 for non-members. Tickets for the dinner, which would be optional would be £4 each.

It was reported that the possibility of arranging charter flights for members attending the Belfast conference was being investigated.

The minutes of the Finance and General Purposes Committee indicated that authority had been given for an account to be opened with the National Giro.

The minutes of the meeting of the Practice Committee presented by the chairman (MR. J. P. KERR) showed that the Ministry of Health was prepared to make available, free of charge, to chemist contractors an imperial/metric conversion calculator. It was hoped that the calculator would be available for distribution towards the end of January 1969. The minutes of the agricultural and veterinary practice subcommittee mentioned arrangements for a group meeting to be held at Kesteven Agricultural College on March 19, 1969; recommended also that arrangements be made for a group meeting on October 8, 1969, and a weekend course on the theme "Crop protection" should be arranged at Sunderland school of pharmacy in 1969, either early in July or towards the end of September.

The hospital practice subcommittee in discussing the sections relevant to hospital pharmacy in the Green Paper on the administrative structure of the Health Services in England and Wales agreed that the criterion for the appointment of Chief Pharmaceutical Officer for the proposed area boards should be administrative ability and therefore the pharmacist concerned might be appointed from any field of pharmaceutical practice. It was recommended that the Council be advised that the Hospital Practice sub-

committee accepted the proposals set out in the Green Paper in so far as they affected the practice of hospital pharmacy.

A letter received from a medical practitioner complained of regular errors in the dispensing of aqueous cream. The errors occurred predominantly in prescriptions dispensed by private chemists but occasionally in hospitals, particularly when there was no skin department. He claimed in a check on thirty prescriptions ten had dispensed oily cream.

The General Practice Committee noted that the official synonyms for oily cream were unq. aquos and hydrous ointment. The committee recommended that a letter be sent to the B.P. Commission drawing attention to possible confusion that might arise through the use of such synonyms and that a letter be sent to the medical practitioner concerned.

It was reported that an earlier decision that a pharmacy should not be established in a health centre to be set up in the grounds of Horsham Hospital had been reversed by the West Sussex Executive Council and the Pharmaceutical Committee had accepted the new decision. It was proposed that the pharmacy could be run by a consortium of Horsham contractors.

Consideration was given to the principle of a suggestion that all medicines should be packed in containers which children could not open. It was considered that the Society's policy should continue to be that all medicines should be packed in containers which provided adequate physical protection to the product, should be treated with care by the public and that too much reliance should not be placed on containers said to be "child-proof."

The minutes were received and the recommendations adopted.

The minutes of the meeting of the Law Committee were presented by MR. SPARSHOTT (chairman). The Committee considered eighteen cases of alleged infringement of the laws relating to pharmacy, and recommended that appropriate action should be taken in each case. Warning letters had been written to eight authorised sellers of poisons and ten unqualified traders in respect of minor breaches under the Pharmacy and Poisons Act, 1933. Warning letters had also been written to eighteen market traders.

"Non-ethical" Promotions

The minutes of the meeting of the Ethical Committee presented by the chairman (MR. ALDINGTON), showed that consideration was given by the Committee to a "money-off" offer in connection with a multi-vitamin product. It was recommended that a letter should be sent to the company drawing its attention to the Council's views on the sales promotion of medicines and that a copy of the letter should be sent to the superintendent pharmacist of the company. The Committee considered a display outer for a cough medicine which had been sent to the office by a pharmacist. The outer had included photographs of three nurses and their names. The wording on the outer was to the effect that the nurses recommended the medicine. The manufacturers, who had been informed that this was an unsuitable sales promotion for a medicine, had replied that the advertising had been approved by the Proprietary Association of Great Britain and conformed with the various advertising codes; that there was no obligation for the pharmacist to accept, or (if accepted) to use the display unit. The Committee recommended that a letter should be sent to the company informing it of the Council's disapproval of this kind of sales promotion. It was also recommended that the correspondence should be referred to the General Nursing Council.

The minutes were received and the recommendations adopted.

The minutes of a meeting of the Committee on a Planned Pharmaceutical Service were presented by THE PRESIDENT.

It was reported that the Pharmaceutical General Council

(Scotland) would be represented on the Committee by M. M. McNeill. The Pharmaceutical General Council (Scotland) had agreed to send a representative to be a member of the Committee on the understanding that the attendance of a member from the General Council did not indicate any derogation of the authority of the General Council on matters affecting chemist contractors in Scotland.

The Committee recommended that the Council should be asked to approve the following terms of reference to the Committee on a planned Pharmaceutical Service: "prepare detailed proposals for the planning of a pharmaceutical service in Great Britain, first agreement within the profession, and then for submission to the Government with a view to securing legislation to bring the proposals into effect." The Committee had discussed the question of the provision of pharmaceutical services in rural and semi-rural areas, with particular reference to the question of pharmacies opening for less than the normal full working day. It was recommended that a further document should be prepared in the light of the discussion at the meeting for consideration at the next Committee meeting.

The minutes were received and the recommendations adopted.

Finland's Pharmaceutical Industry

By JONNI LAINE

THE pharmaceutical industry in Finland started at the end of the nineteenth century but did not experience vast growth until the 1914-18 war, when the need for medicine was great and when foreign marketers of pharmaceuticals came into the country.

In twenty-five years the production of drugs in the pharmacies' own laboratories has decreased going to specialised large scale industry. Around 90 per cent. of medicines used annually in Finland are now industrially made. Of that percentage 60 per cent. is made within the country and 40 per cent. imported. There are twenty-seven pharmaceutical manufacturers in Finland, of which twelve are companies having full rights in manufacturing and selling and fifteen are companies acting under restrictions and special regulations.

The total net sales of the Finnish pharmaceutical companies in 1966 reached £8 million, and of imported pharmaceutical products £6.5 million (no statistics have yet been published in respect of 1967) but one manufacturer claimed a turnover increase of 22 per cent.

Largest Finnish company is Orion employing 600 workers and with net sales in 1967 of £2.6 million. Next biggest is Medica (340 workers) with sales of £1.52 million in 1966 followed by Leiras, with £1.57 million in 1966. Shares in those companies are mostly owned by private persons, usually working in the medical and pharmaceutical field, and by private foundations and associations. Finnish manufacturers spent £0.35 million in advertising in 1966, which was equivalent to 5 per cent. of their sales. Foreign-owned companies spent more than 6 per cent. Goods for sale over the counter amounted to 10 per cent. of all pharmaceuticals sold in Finland in 1966. Appearances suggest that foreign pharmaceutical firms operating in Finland have been turning more to medicine for sale over the counter because the domestic industry has become more self-supporting in prescription medicine. Finland, indeed, is exporting pharmaceuticals into twenty countries, and exports have increased annually.

The central organisation for pharmaceutical manufacturers is *Lääketeollisuusyndistys*, the Pharmaceutical Manufacturers' Association of Finland. The Association was among bodies represented in the Pharmaceutical Manufacturers' International Conference in Stockholm in June 1967.



C&D

CHEMIST AND DRUGGIST

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Panic Measures

THE prescription-only system enforced by the Fourth Schedule of the Poisons Rules, along with the recording safeguards generally provide a satisfactory method of control of those preparations that in the public interest should have a limited circulation. If the system breaks down, at the retail pharmacist level, retribution usually follows quickly, being exacted in the courts and afterwards by the Statutory Committee of the Pharmaceutical Society. So far such action has needed to be brought into effect only rarely, yet it is a salutary thought that the misdirection of a Fourth Schedule preparation on but one occasion can render a pharmacist liable to be struck off the register.

There was a time when some manufacturers and wholesalers were regrettably, not sufficiently "security conscious" concerning Fourth Schedule preparations, and that had resulted in a tightening of the controls. The authorities are now reasonably satisfied with the precautions taken.

So far as Methedrine injection is concerned we have not heard of any extraordinary leakages either from the manufacturer or the wholesalers. To arrive at the current state where there is an alleged misuse of Methedrine injection sufficiently serious to warrant the Ministry of Health taking action to proscribe the retail supply (see *C. & D.* October 5, page 321) indicates that a situation has arisen similar to that revealed in connection with the heroin problem—over prescribing by a few members of the medical profession.

It is in that direction that more stringent measures should be taken.

The current panic measures following advice given to the Government by the Advisory Committee on Drug Dependence are incomplete and unsatisfactory. One problem is that some of the special treatment centres recently organised to cope with addicts will not be able to arrange for their patients to obtain methylamphetamine injections through the retail pharmacist—yet a new and satisfactory system has been specially devised to avoid the misdirection of preparations required for the treatment of addicts in their care. Concerning the interpretation of the new Ministry of Health edict there is as yet no definition of "hospital" and no indication of whether supplies should be limited to hospitals with pharmacies, or whether hospitals without a registered pharmacist in control, are to receive unrestricted supplies. Another aspect of the recent Ministry announcement is the implied suggestion that the hospital is a source of supply that can be more

stringently controlled than can the retail pharmacy, an implication that is somewhat suspect in view of the inspection of pharmacies by the Pharmaceutical Society's inspectors. Hospitals being Crown property are not subject to such inspection.

Surely it is time the real core of the problem—the excessive prescribing by a few of such preparations as methylamphetamine injection—was dealt with. A much more critical approach must be adopted to the whole question with less stampeding by the Ministry.

Retailing Law and Finance

RAISING FINANCE

WHEN finance is needed for expansion, as in the purchase of further accommodation, the question is not simply one of finding a suitable source; it also involves paying an economic rate of interest. At the present time, with funds generally difficult to obtain from the conventional sources, various firms are offering loans at rates of interest that are too high for the purchase to remain a viable proposition.

First port of call should be one's own bank manager. A feature about borrowing from a bank is that, not only will the rate of interest be reasonable (bearing in mind the present economic climate), but that it will be charged only on the balance actually outstanding. This means that, where a bank will oblige, cost of the loan will be equivalent to only about half the figure it would be if the rate were calculated on the full amount outstanding.

Unfortunately, however, banks are not always obliging. At the best of times they are unlikely to lend on freehold property for a period of more than about five years. For leasehold premises that may drop to about three years.

At the moment, because of the various restrictions, it is almost impossible to obtain finance at all from a bank for the acquisition of new premises (unless the circumstances are very special).

Anyone faced with a bank refusal should try to obtain a long-term mortgage at a fair rate of interest. Though, in principle, it is best to borrow as little as one needs, and to repay it as quickly as possible, rather a different situation arises in the case of property. Here, the premises will be rising in value all the time (one hopes!) and yet one will be making repayments based on values ruling when the mortgage was arranged.

Borrowing as much as possible on the property should provide a reasonable amount of working capital, so there will be no need to borrow it from elsewhere. Remember, the more working capital the business has, the more profitable it should be.

One possible source for long-term funds is one's solicitor. He may have funds from another client available for investment, with the result that an arrangement satisfactory to both sides can be made. Even if the solicitor himself does not have such funds, he may well be able to make some inquiries, or put the loan-seeker in touch with some useful contacts. Generally finance houses are unlikely to be of much help over finance for the acquisition of new premises; though they may well be able to help with funds for improvements or alterations to existing premises, if they are not being provided for in some other way.

As a guide (much depending on the circumstances) it might be possible to obtain a loan for up to, say, three years. But the rate of interest would be high—probably around 9 per cent. per annum on the amount borrowed in the first place, even though regular repayments of capital will be made throughout the period.

Whatever proposition is put up, it should be studied carefully, and an accountant or solicitor should be consulted. Chief points to watch are the rate of interest and borrower's position if repayments cannot be kept up.

TRIMETHOPRIM-SULPHAMETHOXAZOLE A NEW ANTIBACTERIAL

L. G. PETTY, M.B., B.S., B.Sc., M.P.S.

DURING the first few years of the sulphonamide era, those compounds had effected what appeared to be miraculous cures. There was widespread belief that pneumonias, gonorrhoea, scarlet fever, meningitis and other infections due to susceptible organisms would soon be eradicated. But it was not at first envisaged that bacteria could evade onslaught by the "wonder drugs." Then complacency was shattered when it was found that resistant strains of bacteria were emerging. The view at the time was that the resistant organisms were mutants left over after sensitive bacteria had been destroyed. It was not then realized that bacteria could acquire resistance.

The story of penicillin is too well known to be repeated. Suffice it to say that after Chain had extracted the antibiotic, Florey had proved its value and industry had shown how to produce it on a large scale, another new era seemed to have dawned. Penicillin did not have so wide a range of activity as the sulphonamides but, unlike the latter, it was bactericidal. They, by contrast, were bacteriostatic and depended for final success on the natural body defences.

But once again the same story was repeated as in the case of the sulphonamides. Some types of bacteria became resistant and side-effects became troublesome in certain cases. Also penicillin was inactive against Gram-negative bacilli. The search for other antibiotics was on. Industry gambled vast sums of money in an endeavour to find new compounds.

It seemed that scarcely a mould or soil bacterium was omitted from these studies, but the rewards were great. The types of antibiotic were legion, the number which survived initial testing few. More recently research workers have produced the semi-synthetic antibiotics, the new penicillins. This type of synthesis, an alliance between fungal husbandry and applied chemistry, will probably continue for a long time, but up to the moment the ideal antibiotic remains to be found.

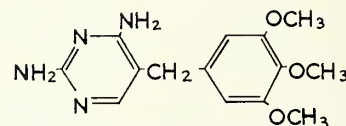
A New Approach

In reviewing, however briefly, the story of antibacterial treatment, one thing stands out. The way in which antibiotics work is complex. That, in itself, presents a formidable barrier to those who would design an entirely man-made antibiotic. By contrast, the Woods-Fildes hypothesis (1940) that sulphanomide interfered with para-aminobenzoic acid, an essential to bacterial growth, offers a fairly simple explanation of the action of sulphonamides, and provides a beckoning light. Well over twenty years ago, Dr. George Hitchings, Wellcome Research Laboratories, Tuckahoe, New York, decided to try and attack metabolic pathways. Sulphonamides act by interrupting the bacterial metabolic pathway leading to the synthesis of folic acid. When Dr. Hitchings started his studies, knowledge of metabolic pathways was minimal. Folic acid had only recently been discovered, DNA was not recognized as the very template on which life is built, nor was its structure visualised. Nevertheless Hitchings and his colleagues in America and Britain began to design and study compounds akin to natural substances known to be involved in cell metabolism as a means of interrupting metabolic pathways.

Basically they were trying to attack cancers and were successful when they discovered mercaptopurine (Purinethol). However, their studies also resulted in the anti-protozoal agent, pyrimethamine (Daraprim), an antimalarial which, combined with a sulphonamide, is effective against *Toxoplasma*. Azathioprine (Imuran), the immunosuppressant which helped make transplantations possible, was another. Allopurinol (Zyloric) the suppressant of uric acid

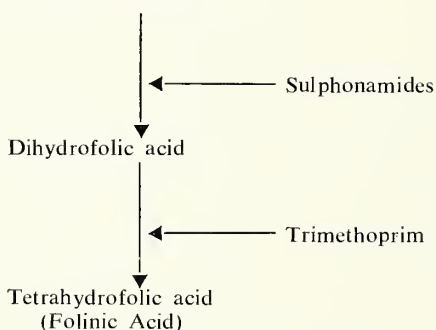
formation, yet, another, and amongst the discoveries was trimethoprim.

Trimethoprim



Trimethoprim, like the sulphonamides, interferes with the pathway leading to the production of purines which are incorporated into bacterial DNA. The sulphonamides act by preventing the production of folic acid, whereas trimethoprim interferes with the next stage, that of changing folic to folinic acid. In brief, the sulphonamides prevent the bacterial synthesis of folic acid and trimethoprim prevents its utilisation.

Para-aminobenzoic acid



It is one of the 2,4-diaminopyrimidines, a series discovered by the Hitchings team to have an inhibitory effect on dihydrofolic acid reductases. Man uses one of these reductases, protozoa another, bacteria another. By suitable modifications, Hitchings was able to produce an antagonist that became strongly bound to bacterial reductase, with insignificant binding to mammalian reductase. The ratio of the binding affinity was, in fact, up to 100,000 times as great. (Bushby & Hitchings 1968).

Pharmacology

Trimethoprim acts as a spurious substrate to block the action of bacterial dihydrofolate reductase in the conversion of dihydrofolic acid to tetrahydrofolic acid (folinic acid). When given by mouth it is rapidly absorbed and significant levels are present in blood within one hour, reach a peak in 2-4 hours, are maintained for seven hours and detectable amounts are present after 24 hours.

Toxicity

The acute LD₅₀ of trimethoprim by mouth is greater than 2000 mgm./kilo for the mouse. No mydriatic, analgesic or sedative action was detected in mice after subcutaneous doses of 5 mgm./kilo, nor did the compound have any important effects on the sympathetic or parasympathetic nervous systems of the anaesthetised cat. In chronic toxicity tests the only adverse effects were depression and maturation defects of haemopoiesis, reflected by falls in haemoglobin concentration and the number of red cells, neutrophils, lymphocytes and platelets. Dogs, monkeys and rats were the subjects of such tests.

Early studies showed no foetal abnormalities in rats at a dose of 200 mgm./kilo. When the dose was increased to 300 mgm./kilo foetal changes characteristic of folate antagonists were observed. The incidence of such malforma-

tions was considerably reduced by feeding folinic acid. Rabbits showed no teratogenic changes when given trimethoprim.

Bacterial Spectrum

Trimethoprim was discovered and studied some ten years ago and at that time must have seemed more of an interesting laboratory tool than a major weapon against infections. True, it proved to have a wide antibacterial spectrum but its effect was bacteriostatic not bactericidal. In that it resembled the sulphonamides and like them it could induce bacterial resistance. It seemed to be of exceptional promise against *Proteus*. It was tried in 1962 and, in combination with a sulphonamide and polymyxin, was successful in a case of *Proteus* septicaemia (Noall *et al.*). Two years later Cooper and Wald in Australia reported similar success. However, the real clue to its present success was not immediately recognised. That was its effectiveness when combined with a sulphonamide.

Choice of sulphonamide was important because it had to be one which had a similar length of activity to trimethoprim. Then, too, the relative proportions of the ingredients had to be found. The one that fulfilled the necessary criteria was sulphamethoxazole (Gantanol) and the optimal proportions for clinical use proved to be one part of trimethoprim to five parts of sulphamethoxazole. Together the two ingredients are bactericidal, separately each is merely bacteriostatic. Together they form a combination against which bacterial resistance seems unlikely. That could be explained on the grounds that when the single drug is used, some bacteria may find a way round the metabolic block, whereas if the block is wide enough—due to the sequential double blockade produced by the combination—bacteria seem unlikely to overcome it.

The combination has a wide antibacterial spectrum against both Gram-negative and Gram-positive organisms including *Escherichia coli*, *Streptococci*, *Staphylococci*, *Salmonella*, *Shigella*, *Proteus*, *Bordetella*, *Haemophilus* and *Neisseria* as well as many other pathogens. Furthermore, species that show borderline sensitivity to individual antibacterial agents have proved to be sensitive.

The combination is not effective against *M. tuberculosis*, and *Treponema pallidum*, and *Pseudomonas pyocyanea* is not sensitive *in vitro*.

Clinical Trials

At the present, the combination (Septrin of Burroughs Wellcome; Bactrim of Roche) is principally indicated in urinary tract and respiratory infections and in septicaemias. The results to date have been impressive. As an example, Darrell *et al.* (1968) report the case of a man aged fifty-nine with staphylococcal pneumonia resistant to benzylpenicillin, streptomycin, tetracycline, chloramphenicol, erythromycin, lincomycin, methicillin and cephaloridine. Under treatment with trimethoprim-sulphamethoxazole the pneumonia rapidly resolved and four subsequent sputum specimens were either sterile or yielded coagulase-negative staphylococci only. Drew *et al.* (1968) reported rapid clearance of purulent sputum in fifty cases of chronic bronchitis. Csonka and Knight (1967) compared trimethoprim and sulphonamides alone and in combination in 245 male patients with urethral gonorrhoea. Trimethoprim alone was without effect, triple sulphonamide and sulphamethoxazole cured 31-33 per cent. of patients, trimethoprim with triple sulphonamide succeeded in 89 per cent., but trimethoprim with sulphamethoxazole cured 93 per cent.

Darrell *et al.* also reported the use of the combination in a man aged fifty-seven whose urinary tract infection was not relieved symptomatically by ampicillin after three days. Sulphonamides alone also failed and it was found that the organism, a *Klebsiella*, was resistant to ampicillin and to sulphonamides. However, within forty-eight hours of combined trimethoprim and sulphamethoxazole symptoms disappeared and the urine was shown to be sterile. A small

trial of the combination against typhoid was carried out in Nigeria (Akinkugbe *et al.*, 1968). Six patients received the combination while four others were given chloramphenicol. All ten patients recovered uneventfully, but fever seemed to subside more quickly in those treated with the combination. As the *British Medical Journal* pointed out in its Today's Drugs article on sulphonamides earlier this year, "It is unlikely that many more major contributions will be made to our stock of antibiotic agents, and particularly if the promising development of synergic agents continues, we may again have cause to be grateful for the sulphonamides." Trimethoprim is such an agent.

Side Effects in Man

Malaise, nausea and vomiting have occurred with trimethoprim alone, but only when the daily dose exceeded 1 gm., which is three times that included in the average recommended dosage. Rashes have occurred in a few cases. The drug should not be given during pregnancy; it is also contra-indicated in patients known to be sensitive to sulphonamides. Care is needed in patients with marked renal impairment.

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NEW BOOKS

Indian Pharmaceutical Guide, 1968

Pamposh Publications, E-38 Hauz Khas, New Delhi, 16, India. 10 x 7½ in. Pp. 920. 100s.

THIS is the sixth edition follows the pattern of earlier editions. In six sections the first deals with the industry, and legal requirements for manufacture and sales and available literature. Other sections comprise a pharmaceutical directory, list of makers and dealers together with their products, etc. The largest section (Pp. 500) gives a list of pharmaceutical products their composition and prices.

Color Atlas of External Manifestations of Diseases

G. F. KLOSTERMANN, H. SUDHOF and W. TISCHENDORF (M. TUCHMAN, M.D., editor of English edition). McGraw-Hill Publishing Co., Ltd., McGraw-Hill House, Shoppenhangers Road, Maidenhead, Berks. 11 x 7½ in. Pp. xvi + 298. 180s.

In this atlas more than 450 photographs, nearly all in full colour, provide an aid to diagnosis by illustrating those clinical manifestations of disease that "can be appreciated by inspection." The illustrations are of actual patients and show clearly the features to be noted. Disorders are classified according to type and brief text descriptions are given on pages facing the illustrations.

Ganglion-blocking and Ganglion-stimulating Agents

D. A. KHARKEVICH, Pergamon Press, Ltd., Headington Hill Hall, Oxford. 8½ x 5½ in. Pp. xi + 367. 90s.

THE author is professor of pharmacology at the First Moscow Medical Institute, Moscow, U.S.S.R., who brought this English edition up to date during translation (the Russian edition was published in 1962). The work is intended for pharmacologists, chemists and clinicians and deals mainly with the relationship between chemical structure and ganglion-blocking activity and with the mechanism and localisation of ganglion-blocking action. Effects on ganglia of substances in other pharmacological groups are considered in a separate chapter. There is an extensive list of references.

TRADE PROSPECTS IN WEST AFRICA

By QUO VADIS

(Concluded from THE CHEMIST AND DRUGGIST, September 7, p. 234)

Nigeria

Nigeria's population alone commends that country for serious attention. Though a number of pharmaceutical concerns have put their foot in the Nigerian door and their staffs in Nigeria have maintained a sustained effort, some of the parent offices have not indicated a supporting interest. With the exception of one Continental-owned and one American-owned firm, the general picture is that the interest of parent offices has been casual and confused. In that respect the American-owned sector of the U.K. industry appears to be among the worst offenders. Their inefficiency is surprising and contrary to most Englishmen's impression of American business organisation.

From the individual manufacturer's point of view the stock situation has largely depended upon the selection of import agent. "Ethical" firms using one particular agent have unquestionably lost business for, on many occasions, their best selling lines have been unobtainable on a country-wide basis. The gravity of that situation can be better appreciated when it is realised that broad-spectrum antibiotics and antimalarials have been among the products so affected. Such an incredible situation has been repeatedly recurring for major-demand products since 1960, and is thus quite divorced from any conditions that may have arisen since one Region attempted to secede. Since the declaration of secession, the Federal-controlled areas have been noteworthy for the general maintenance of law and order, with most firms in the drug trade holding or increasing their exports to Nigeria.

This is no place to comment upon the Nigerian revolt or its background. Suffice to point out that recently the plight of minority tribes in Biafra has received wide publicity in Europe, and though Biafra has been reported refusing food and medical assistance, the Federal Government's acceptance has led to several medical teams currently operating in the Federal liberated areas of the old Eastern Region of Nigeria that was once claimed to be Biafra. Massive help is needed by both sides to the dispute. Drug firms are in a unique position to assist with gifts of suitable products.

The story of Nigeria's tragedy has not been published, until it appears judgment should be reserved. It is reasonable to assume that the difficulties imposed by the secession revolt have caused more concerns to adopt a wait-and-see attitude. The recent peace talks, and the fact that, after the civil war passes, commercial concerns will be faced with a Nigeria comprising twelve states, each with a capital, instead of a country with five administrative centres, should afford opportunity to replan operations in this well populated country.

Past Errors of Judgment

In the past, judgment errors have been frequent. The American concerns have been most involved, and it is probably true that only large corporations could afford such errors, most of which could have been avoided by acting on advice. Agency agreements have been purposely nebulous. Hence import agents cannot be entirely blamed for protecting their interests, with the result that they have been holding and ordering inadequate stocks. Staff has often been recruited on the basis of "must have a man on the spot" and at a low salary, instead of offering a fair salary to get the right man. Management has "decreed" that products must be stocked and promoted irrespective of price competition, pack, and suitability of the product for the market. Senior staffs in Nigeria have been subject to constant change. In one instance four changes were made within two years, effectively preventing the men involved

from absorbing the background against which they had to work. Nigerian staff have often been neglected.

Whatever future arrangement the manufacturer finally makes, its success will depend upon stocks being available at the wholesale and retail points. Where there has been persistent failure over the years, a change in supply and possibly an agency arrangement deserves consideration. The large "ethical" firms could possibly form a consortium, renting suitable premises to which goods could be consigned for storage and released to agents and/or distributors. Arrangements could be made for invoicing to the agents' European offices. Mailing and sample control could be effected from such an establishment, as could the control of sales-promotion vans. Consortium members would know that their vans were being used for the purpose intended and would have direct control over them, whereas today, if an import agent is paid to operate a van for any particular concern, that van may be (and often is) used to deliver competitors' products. Responsibility for local stocking would then fall upon the manufacturer. Staffing should present no particular problems. A European executive, experienced in successful employment of Nigerians, would be essential; remaining staff could be recruited in Nigeria, where excellent material awaits employment opportunity. Pharmaceutical manufacturers, if unable to effect a severe shake-up of the import-agent/wholesale distributor pattern that has so lamentably failed in the past, face a clear alternative. Each maker will either have to carry his own stock in his own establishment (and for many firms that would be uneconomical) or they will continue to lose business that might be theirs.

Former French Territories

The French territories usually pose difficulties to U.K. manufacturers because Metropolitan French legislation still applies, despite so-called independence. Companies without associate manufacturing firms located in France have business opportunities. Country-wide distribution is a problem because for historical reasons ex-French territories are not blessed with the vast number of licensed "patent" medicine vendors that are found in ex-British areas. Thus, in the independent ex-French countries of West Africa, manufacturers are virtually dependent upon the existence of pharmacies for distribution. In some of the countries, especially so in Congo-Brazzaville, Mauritania, Niger and Tchad, pharmacies are few. In the capitals of those countries good pharmacies of the continental type exist. The Ivory Coast and Senegal have a number of pharmacies in their capitals. Pharmacies also exist in the few main towns. Government central buying organisations, usually situated in the capitals, may be worth visiting by firms seeking bulk business. Communications to Europe are reliable, while the telephone network is well ahead of its counterpart in the ex-British countries. Passports should be visaed prior to departure.

Congo-Kinshasa, although to date the most unstable country listed, has been, but is not now, without opportunity. A sizeable European community still exists and the reopening of plantations is occurring. An experienced man versatile in the less orthodox methods of financing export business could well find a twice-yearly visit to Congo-Kinshasa worth while. Within the country travel to commercial centres is usually effected by air, for which tickets should be purchased before arriving at Kinshasa. Hotel reservations should also be made in advance.

Liberia is probably the only country listed in which the manufacturer will find that the only restrictions are due to the lack of suitable import agents at the capital, Monrovia. The country is well worth more attention than

is received by some manufacturers based upon the U.K. free port facilities exist. For most firms business has been restricted owing to lack of stocks. Persons contemplating first visit to Liberia could usefully contact an experienced visitor prior to departing unless they have made arrangements to be met at the airport, which is about forty-five miles from the capital and maintains a time-difference of forty-five minutes. Apart from carrying non-scheduled territories travellers' cheques, it is sensible to land with thirty-
 U.S. Dollar notes, because taxis to Monrovia are expensive.

Fernando Po has recently received international publicity because of Nigeria's secession rebellion. Business visiting presents no particular problem. Product packages and literature should be trilingual (Spanish, French and English). Provided Fernando Po is taken in as part of an itinerary call there can prove profitable. The visitor should take such medicines as he may want for his personal use, plus insect repellents.

Gambia, though a small market, can be of more interest than generally realised. There is trade in some commodities on the island markets. Pharmacies and a government medical store exist at Bathurst. For visiting them the Atlantic Hotel is convenient.

Small but Interesting

Sierra Leone presents most manufacturers with a much larger market than most have been able to gain. This has been due entirely to inadequate stocks held in the country, restricting the entire range of some manufacturers. Quick-selling lines are, according to the import agent used, frequently unavailable and stocks have been exhausted within a few days of their arrival. Here, on a West African tour, a first learns that one's goods are "never out of stock." Instead the euphemism "so-and-so is sold out" is used to cover the identical situation. That accords with the agent's bias of "return on capital," but takes no account of high administration cost in relation to low actual profit. Though attempts to introduce a new product are often met with failure, to create the demand and then we will stock the product," for many exporters a larger volume of business will become available until the local stocking problem has been satisfactorily solved; from past performance a solution would appear almost impossible. Since the country is so small to justify for most firms establishing a local office, the stocking problem may possibly be overcome by transferring the agency to an indigenous pharmacist. If the pharmacist does not possess sufficient capital, then commitment stocks, with the utilisation of a forwarding agent's facilities, would be worth considering until the agent's financial position improves. Meanwhile prescriptions issued by priority-class "ethicals" pass unfulfilled, embarrassing the prescriber, annoying the pharmacist and causing the patient anguish.

Ghana

Ghana is probably the most sophisticated market of the West African area. Legislation is advanced compared with most British countries. The widespread demand for "ethicals" is high. It is perhaps unfortunate that there have been attempts to attract local manufacture of "ethical" products, but it is doubtful if an international manufacturer of "ethicals" could economically establish in Ghana merely to supply the current Ghanaian market. As, moreover, their manufacturing costs would be high, the opportunity to export from Ghana would appear to be negligible. Nationalisations will probably continue to attempt to induce manufacturers to establish local factories, and firms so approached should be in a position to deal effectively with such approaches. There has been a failure by some government officials to realise the high degree of specialisation familiar to most "ethical" manufacturing firms. One firm producing locally cannot meet the entire needs of Ghana,

though it could well swamp the country with its particular products. Thus, by seeking the establishment of pharmaceutical plants in Ghana, the authorities are, in final analysis, hunting for still more "white elephants," of which Ghana today possesses an embarrassing quantity.

Possibilities in Local Manufacture

A small local plant suitably equipped to handle packaging from imported bulk, plus third-party manufacture for a limited number of the major selling products, could prove economically sound, provided certain guarantees are first negotiated. Bonded facilities within the factory area, the right to import all materials (for example raw, semi-finished, and bulk-finished products, packaging, closures, machines and spares, etc., on a duty-free basis) would have to be fundamental non-negotiable conditions clearly understood by the Ghana authorities at the outset of the conversations. The payment of procurement fees should be rejected. One is then left to determine the value and life of any negotiated guarantee and reflect that, not so long ago, industries actually established in Ghana were unable to obtain foreign exchange to buy both raws and spares to maintain production. Repatriation of profits is another question. Of all the West African countries that once had their priorities out of focus, Ghana was a classical example. Today she is recovering from the position that she found herself in in early 1966. Given stable government, able and willing to avoid the internal impact of pressure groups, her prospects for a rapid recovery are bright. Those firms that have been alert to the opportunities of business have invariably been surprised that the past two-and-a-half years have been so fruitful. Some have regretted that they reduced their marketing activity during 1965. For many manufacturers the stock position in Ghana was unsatisfactory before the imposition of import restrictions. Today there is presented an opportunity of reviewing agency agreements to avoid a repetition of past situations after the market becomes unrestricted.

A PHARMACIST'S ANTHOLOGY SHUT UP SHOP ALTOGETHER

From "Pendennis" by W. M. Thackeray

HE quickly after his apprenticeship parted from the coarse-minded practitioner his relative, and set up for himself at Bath with his modest medical ensign. He had for some time a hard struggle with poverty; and it was all he could do to keep the shop in decent repair, and his bed-ridden mother in comfort: but Lady Ribstone happening to be passing to the Rooms with an intoxicated Irish chairman who bumped her Ladyship up against Pen's very door-post, and drove his chair-pole through the handsomest pin-bottle in the surgeon's window, alighted screaming from his vehicle, and was accommodated with a chair in Mr. Pendennis's shop, where she was brought round with cinnamon and sal-volatile.

Mr. Pendennis's manners were so uncommonly gentlemanlike and soothing, that her Ladyship, the wife of Sir Pepin Ribstone, of Codlingbury, in the County of Somerset, Bart., appointed her preserver, as she called him, apothecary to her person and family, which was very large. Master Ribstone coming home for the Christmas holidays from Eton, over-ate himself and had a fever, in which Mr. Pendennis treated him with the greatest skill and tenderness. In a word, he got the good graces of the Codlingbury family, and from that day began to prosper. The good company of Bath patronised him, and among the ladies especially he was loved and admired. First his humble little shop became a smart one: then he discarded the selling of tooth-brushes and perfumery: then he shut up the shop altogether, and only had a little surgery attended by a young man; then he had a gig, with a man to drive him, and, before her exit from this world, his poor old mother had the happiness of seeing from her bedroom window, to which the chair was rolled, her beloved John step into a close carriage of his own, a one-horse carriage it is true, but with the arms of the family of Pendennis emblazoned on the panels.

CONFERENCE SCIENCE SESSIONS

WEDNESDAY morning's science session was under the chairmanship of PROFESSOR J. B. STENLAKE, who introduced MR. G. A. BUCKLEY to give his first Conference paper.

EXPANSOR SECUNDARIORUM

Pharmacology investigated

G. A. BUCKLEY and LYNDIA E. WHEATER (Department of Pharmacology and General Therapeutics, University of Liverpool)

SOME aspects of the pharmacology of an isolated smooth muscle, the expensor secundariorum, of the domestic fowl have been investigated. Adrenaline, isoprenaline, tyramine and 5-hydroxytryptamine caused the muscle to contract. The responses to adrenaline and noradrenaline were blocked by phentolamine but not by propranolol at a concentration of 1.7×10^{-6} M. Tyramine was without effect on the muscle of reserpine-treated birds. Cocaine potentiated the effect of noradrenaline but blocked the effects of tyramine. Acetylcholine and histamine had no effect and did not alter the responses of the muscle to noradrenaline. The response to noradrenaline was greater at temperatures below 23° and less at 38° . The muscle contracted rapidly on the addition of Tyrode solution cooled to 18° . It is concluded that the muscle is wholly innervated by adrenergic post-ganglionic fibres. It should be possible to use the preparation to study drugs on the assumption that their effects are unlikely to be mediated via cholinergic receptors or parasympathetic fibres.

THE AUTHOR told a questioner that the weak contracting effect of nicotine on the preparation was suspected as being a direct action on the muscle. DR. D. JACK, Ware, was informed that tests for the presence of acetylcholinesterase were negative. It was also suggested that fluorescent staining would have been an easier method of demonstrating the presence of sympathetic nerves.

The morning's second "first" was presented by MR. T. A. R. TURNER:—

LEPTAZOL CONVULSIONS

Effect of pre-treatment with monoamine oxidase inhibitors on (+)-amphetamine in mice and rats

T. A. R. TURNER and P. S. J. SPENCER (Department of Pharmacy, University of Aston)

MONOAMINE-oxidase inhibitors have been claimed to inhibit the actions of leptazol in experimental animals, but other workers have failed to confirm that anticonvulsant action. The authors report initial observations during a re-examination of the interaction between leptazol and five representative monoamine-oxidase inhibitors. It is concluded that leptazol convulsions and deaths due to leptazol may be potentiated in rats and mice by pre-treatment with (+)-amphetamine or monoamine-oxidase inhibitors possessing inherent sympathomimetic activity. The effect is transient; for (+)-amphetamine it appears to coincide roughly with the elevation of motor activity by the drug and thus may be due to

an effect on the central rather than the peripheral adrenergic nervous system. Nevertheless, an effect on the animals' ability to inactivate leptazol cannot be excluded. Drugs that simply inhibit monoamine oxidase, whether of the hydrazine group or not, possess neither proconvulsant nor anticonvulsant activity.

DR. JACK questioned what the authors meant by "sympathomimetic effect," suggesting it was an "old-fashioned" concept. They had, he maintained, shown just that the drugs that had a potentiating effect were themselves central-nervous-system stimulants. DR. SPENCER replied that the ability of the drugs to release amines was being studied. DR. G. E. FOSTER, Dartford, asked how convulsions were assessed and was told by MR. TURNER that in mice it was by number of deaths (which increased with the number of convulsions), the animals dying in tonic convulsions and in rats by observing the number of clonic episodes.

MR. R. BEST next presented:—

ALLOXAN DIABETES

Effect upon adjuvant-induced arthritis in rat

R. BEST and P. S. J. SPENCER (Department of Pharmacy, University of Aston)

THE effect of alloxan diabetes induced at various times during the development of arthritis syndrome in rat following injection of Freund's adjuvant (a preparation of dead tubercle bacilli) has been investigated. Diabetes produced before injection of adjuvant significantly attenuated both the acute and secondary chronic reactions to adjuvant. Alloxan given on the fourth day after adjuvant produced less marked attenuation. Given fifteen days after it caused a steady decline in the chronic arthritic phase until day 28 when observations ceased. There may be a place for induced hyperglycaemia in treating inflammatory disease in man. DR. G. S. COX, Aberdeen, who asked whether blood glucose levels had been checked, was told that diabetes had been inferred only from glucosuria. DR. FOSTER was informed that measurement of lost volume was achieved by marking the skin of the foot at a particular level and immersing it to that mark each time. DR. JACK asked whether the authors could explain the results—was there inhibition of antibody formation. MR. BEST replied that the mechanism was now being studied. The inference from other acute inflammation models was that antibody inhibition was not the mechanism.

Presenting another first paper was MR. M. D. DAY:—

PROPRANOLOL

An adrenergic neuron blocking action

M. D. DAY, D. A. A. OWEN and P. R. WARREN (Department of Pharmacy, University of Aston)

PROPRANOLOL was tested for adrenergic neuron-blocking activity in three isolated sympathetically innervated smooth-muscle preparations; the rat vas deferens, rabbit ileum and rabbit ear artery. In each preparation pro-

pranolol impaired the responses to sympathetic stimulation without reducing the responses to added noradrenaline. The blocking action of propranolol resembled that of guanethidine in time of onset and persistence of blocking activity but, unlike blocking by guanethidine, was not reversed by (+)-amphetamine. Desmethylinipramine and noradrenaline also failed to reverse the blocking action of propranolol. In the rat vas deferens preparation lignocaine had a weaker and more transient sympathetic blocking action than propranolol. It is suggested that the sympathetic blocking action of propranolol may contribute to its antihypertensive effect in man. MRS. P. L. BARRETT, Imperial Chemical Industries, Ltd., said that in clinical practice propranolol produced postural hypotension or hypotension of exercise but there was an increase in peripheral vascular resistance. Had it been possible to compare the effects *in vivo* DR. JACK said that in hypotensive animals propranolol caused no fall in blood pressure unless the dose was sufficient to produce myocardial depression. He suspected that higher concentrations of drug were being used by the authors than would be present in the whole animal. MR. DAY replied that the doses were "pharmacological reasonable" and whole animal concentrations were not known. MRS. BARRETT said that in hypotensive patients high doses were required to produce a fall in blood pressure, which DR. JACK said again suggested something other than a β -blocking action.

MR. R. H. EVANS then gave a full Conference contribution:—

ADENOSINE TRIPHOSPHATASE ACTIVITY

Micro-colorimetric determination of freeze-dried sections of rat diaphragm muscle

G. A. BUCKLEY, R. H. EVANS and P. T. NOWELL (Department of Pharmacology, Liverpool University)

A TECHNIQUE is described for determining ATPase activity in 3–30 μ g samples dissected from freeze-dried sections of rat diaphragm muscle. Tissue samples are incubated at room temperature with optimal concentrations of ATP (10 mM and MgSO_4 (5 mM) in 0.1 M tris base HCl buffer at pH 7.4. Inorganic phosphate is measured spectrophotometrically. Results did not depend on plane of section or section thickness. 5 mM Mg^{2+} , 10 mM Ca^{2+} and 1 mM 2,4-dinitrophenol produced maximal ATP activation, and inhibition was obtained with *p*-chloromercuribenzoic acid ($\text{pI}_{0.3-0.9}$) but not chlorpromazine (0.1–0.1 mM). There was no significant dependence of Na^+ plus K^+ activated ATP or inhibition with ouabain (5 mM) on ATPase activity was uncharacterised relative contributions of specified muscle ATPase systems were unknown. As insoluble enzyme system was involved and photomicrographs showed characteristic muscle features in freeze-dried sections, ATPase activity appeared to be enzymic function *in situ*. Results are discussed in relation to availability of enzyme sites and reagents.

GUIDE TO NEW MEDICAMENTS

Information about proprietary products supplied principally on prescription. Reprints on perforated gummed paper for affixing to index cards are obtainable from the Editor. Notes on the products appear on p. 364.

CHEMIST AND DRUGGIST Guide to New Medicaments, Oct. 12, 1968

CEPTRIN tablets

MANUFACTURER: Burroughs Wellcome & Co., 183 Euston Road, London N.W.1.

DESCRIPTION: White tablets, scored, coded Y2B, each containing 80 mgm. of trimethoprim and 400 mgm. of sulphamethoxazole.

INDICATIONS: Lower respiratory tract infections, urinary tract infections, gonorrhoea.

CONTRAINDICATIONS: Pregnancy; sulphonamide sensitivity.

DOSE: *Adults and children over 12*: Two tablets twice daily.

Children (16-12 years): Half the adult dose.

PACKS: Containers of twenty, 100 and 500.

SUPPLY RESTRICTIONS: P.I., S4B.

FIRST ISSUED: October 1968.

CHEMIST AND DRUGGIST Guide to New Medicaments, Oct. 12, 1968

Poliomyelitis Vaccine (inactivated) B.P., Glaxo

MANUFACTURER: Glaxo Laboratories, Ltd., Greenford, Middlesex.

DESCRIPTION: Salk-type vaccine containing killed strains of three types of poliomyelitis virus: Type 1, modified Brunhilde (Enders), 75 D units; type 2, MEF 1, 2 D units; type 3, Saukett, 4 D units.

INDICATIONS: Vaccination against poliomyelitis.

DOSE: 0.5 ml as scheduled. Administration may be by intramuscular or subcutaneous injection.

STORAGE: Should be protected from light and stored in a refrigerator at 2-10°C. Freezing must be avoided. Shelf life is then twelve months.

PACK: Single 0.5-ml ampoule.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: September 1968.

CHEMIST AND DRUGGIST Guide to New Medicaments, Oct. 12, 1968

PAVULON (NA-97) injection

MANUFACTURER: Organon Laboratories, Ltd., Crown House, Morden, Surrey.

DESCRIPTION: 2-ml ampoules each containing 4 mgm. of pancuronium bromide, 18 mgm. of sodium chloride and water for injection to 2 mls.

INDICATIONS: A neuro-muscular blocking agent suitable for anaesthetic techniques requiring muscle relaxation.

DOSE: *Adults*: 4-6 mgm. by intravenous injection initially. Supplements up to 2 mgm. may be given.

CAUTIONS: Care should be exercised in patients with renal failure or renal disease as Pavulon is excreted in part unchanged.

STORAGE: Should be kept cool and in the dark.

PACKS: Boxes of six and twenty-five 2-ml ampoules.

SUPPLY RESTRICTIONS: P.I., S4B.

FIRST ISSUED: September 1968.

CHEMIST AND DRUGGIST Guide to New Medicaments, Oct. 12, 1968

MESESED capsules

MANUFACTURER: Boots Pure Drug Co., Ltd., 37 Station Street, Nottingham, NG2 3AA.

DESCRIPTION: Powder blue opaque/brown opaque capsules, each containing 250 mgm. of methaqualone.

INDICATIONS: Insomnia of any aetiology.

DOSE: *Adults*: One capsule should be taken 15 to 30 minutes before sleep is desired.

CAUTIONS: Methaqualone has been shown to potentiate the action of alcohol and certain drugs such as codeine and the antihistamines.

EFFECTS: When sleep is delayed or prevented after the administration of methaqualone a few patients have experienced a transient paraesthesia; investigation has failed to associate the manifestation with any type of peripheral neuropathy. Dependence and habituation have occurred in a few patients. A skin rash has been very rarely reported.

PACKS: Containers of 100 and 500.

SUPPLY RESTRICTIONS: P.I., S4B.

FIRST ISSUED: September 1968.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, Oct. 12, 1968

TRIPERIDOL injection

MANUFACTURER: Janssen Pharmaceuticals, Saunderton, High Wycombe, Bucks.

DESCRIPTION: Clear liquid in 1-ml ampoules containing the equivalent of 2.5 mgm. of trifluoperidol.

INDICATIONS: Emergency treatment of severely agitated psychotic patients. Also in those psychotic patients where oral administration is impossible.

CONTRAINDICATIONS: Neurological disorders with extrapyramidal symptoms. Pregnancy.

DOSE: 0.5-2.5 mgm. by intramuscular route. The dose may be repeated once or twice in each twenty-four hours until adequate control of the patient has been achieved. Oral administration should be continued to maintain the clinical effect.

SIDE EFFECTS: Extrapyramidal effects may be seen at high doses, but may be controlled with anti-Parkinsonism drugs.

SHELF LIFE: More than three years at room temperature when protected from light.

PACK: Box of ten ampoules.

SUPPLY RESTRICTIONS: P.I., S4B.

FIRST ISSUED: September 1968.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, Oct. 12, 1968

VIBRAMYCIN syrup

MANUFACTURER: Pfizer, Ltd. DISTRIBUTOR: Harvey Pharmaceuticals, Department of Pfizer, Ltd., Ramsgate Road, Sandwich, Kent.

DESCRIPTION: Red coloured syrup, flavoured with raspberry and apple, each 5 mls of which contains the equivalent of 50 mgm. of doxycycline as the calcium chelate.

INDICATIONS: Infections caused by Vibramycin sensitive organisms.

CONTRAINDICATIONS: Tetracycline hypersensitivity.

DOSE: The once-daily dosage should be given at the following rates. *Adults and children over 12 years*: Four teaspoonfuls initially then two to four teaspoonfuls a day. *Children 6-12 years*: Two to four teaspoonfuls initially then one to two teaspoonfuls daily; *2-6 years*, one to two teaspoonfuls initially then half to one teaspoonful daily. (Dosage is based on the 5-ml teaspoon.)

SIDE EFFECTS: Gastrointestinal upsets as with other broad-spectrum antibiotics (but rare.)

STORAGE: Should be kept in cool place when shelf life is eighteen months.

PACK: Bottle of 30 mls.

SUPPLY RESTRICTIONS: Therapeutic Substances Act.

FIRST ISSUED: August 1968.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, Oct. 12, 1968

SYNACTHEN DEPÔT injection

MANUFACTURER: CIBA Laboratories, Ltd., Horsham, Sussex.

DESCRIPTION: Ampoules of 1 ml containing 1 mgm. of tetra-cosactrin in a zinc phosphate complex. Also multi-dose vials containing 2 mgm. in 2 mls.

INDICATIONS: Rheumatic and collagen disorders, allergic disorders and hypersensitivity reactions, chronic skin disorders, disorders of the central nervous system, and to wean patients from corticosteroid therapy.

CONTRAINDICATIONS: Caution should be observed in pregnancy, hypertension, acute psychosis, infections, peptic ulcer, diabetes mellitus and in patients with fluid retention.

DOSE: Intramuscular or subcutaneous injection of 0.5-1 mgm. daily or on alternate days in rheumatic or collagen disorders. In most other conditions intermittent therapy giving 1-2 mgm. at intervals of three to as long as ten days is often sufficient. See *manufacturer's literature*.

NOTE: Not for intravenous administration.

SIDE EFFECTS: Oedema and hypertension usually indicate excessive dosage and can be eliminated by suitable adjustment.

STORAGE: Should be stored below 15°C. and protected from light under which conditions it is stable for at least three years.

PACKS: Ampoules of 1 ml in box of ten and multi-dose vials of 2 mls.

SUPPLY RESTRICTIONS: P.I., S4B., Therapeutic Substances Act.

FIRST ISSUED: September 1968.

TRADE REPORT

The prices given are those obtained by importers or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are augmented before wholesale dealers receive the goods into stock.

LONDON, OCTOBER 9: Among CRUDE DRUGS Seychelles CINNAMON BARK continued to climb, shipment being up 10s. per cwt. while spot was nominally 340s. after a parcel was sold at 335s. CHERRY BARK was dearer by one penny per lb. in both positions but WITCH HAZEL LEAVES were down twopence. Cape ALOES was unchanged on the spot with earliest shipment dates now extended to December-January. COCHINEAL remained nominal in all positions from what ever source. PODOPHYLLUM (*Emodi*) seems to be cleared on the spot and there were no offers from origin. The only primary source offering IPECACUANHA was Nicaragua while spot Costa Rican moved up because of a tight position. KARAYA was lower at 310s. per cwt. spot for the No. 2 f.a.q. gum. MENTHOL was unchanged.

Among ESSENTIAL OILS Chinese ANISE was down sixpence per lb on an easier shipment position. CLOVE LEAF was threepence dearer and Chinese PEPPERMINT at 10s. 11d., c.i.f., was up twopence. LEMONGRASS was nominal in all positions.

Pharmaceutical Chemicals

BROMOFORM.—B.P.C. (6 bottles) 42s. 6d. kilo; (12 bottles) 42s. 1d.

CHLORAL HYDRATE.—1-cwt. 4s. 8d. per lb.

CHLOROXYLENOL.—B.P.C., 7s. 6d. per lb. 1-cwt. lots, delivered.

DIENOESTROL.—B.P. is 1s. 3d. per gm. for 5-kilo lots.

EMETINE.—HYDROCHLORIDE, £450 kilo.

EPHEDRINE.—HYDROCHLORIDE, 4s. 9d. per oz. for 1,000-oz. lots. METHYL derivative, 425s. kilo.

HEXAMINE.—B.P.C. 1959, 50-kilo lots are 6s. per kilo.

HYOSCINE.—(Per kilo): HYDROBROMIDE, 3,932s.; METHYLBROMIDE, 4,374s.

HYOSCYAMINE SULPHATE.—1-kilo lots 1,357s.

NEOMYCIN SULPHATE, B.P.—5-kilos, 550s. per kilo sterile and non-sterile.

PENICILLIN.—SODIUM, POTASSIUM or PROCAINE, 2.25d. per mega for 5,000 megas.

PREDNISOLONE.—ALCOHOL and ACETATE from 7s. per gm.

SANTONIN.—5 kilo lots, 374s. kilo.

STREPTOMYCIN.—BASE and SULPHATE, 2.85d. per gm.

ZINC OXIDE.—B.P., 2-ton lots, £135 3s. 6d. ton.

ZINC SULPHATE.—Commercial, £54 ton.

Crude Drugs

ACONITE.—Spanish *napellus*, 4s. 3d. lb. (4s., c.i.f.).

AGAR.—Kobé No. 1, 19s. 6d. lb., c.i.f.; European, 22s. 6d., duty paid.

ALOES.—(Per cwt.). Cape primes, 320s., spot, nominal; 270s., c.i.f., Dec.-Jan., Curaçao, 520s.; 500s., c.i.f.

BALSAMS.—(per lb.). CANADA: 33s. c.i.f., 33s. 6d. spot; COPAIBA: B.P.C., 10s. c.i.f.; 10s. 6d., spot; PERU: 13s. 3d., c.i.f.; 13s. 9d. spot; TOLU: B.P., 13s.-14s.; genuine as imported, 41s. 6d., c.i.f.

BELLADONNA.—LEAVES, 3s. 8d. lb., spot, 3s. 6d., c.i.f.; HERB, 2s. 6d. and 1s. 10d., c.i.f.; ROOT, 1s. 11d. spot, 1s. 10d., c.i.f.

BENZON.—Sumatra block B.P.C., SPOT £27 per cwt.

BUCHU.—LEAVES, spot 22s. lb. nominal; no shipment offers.

CALAMUS.—Spot from 55s. to 65s. per lb.

CALUMBA.—Spot, 130s. cwt., 120s., c.i.f.

CAMPHOR.—B.P. powder, 42s. kilo; 34s., c.i.f.

CARDAMOMS.—Alleppy greens, 19s. 6d. lb. spot, nominal; 17s. 6d. c.i.f. Alleppy prime seed, 25s. 6d., c.i.f.

CASCARA.—Spot, 320s. cwt. nominal; 295s., c.i.f.

CASSIA.—*Liguea*, whole, 500s. cwt., duty paid, nominal; 420s., c.i.f.

CHERRY BARK.—Thin natural, 3s. lb., spot; 2s. 9d., c.i.f.

CHILLIES.—Zanzibar, 340s. cwt. spot.

CLOVES.—Zanzibar 9s. lb. spot; 8s. 6d., c.i.f.

CINNAMON.—Seychelles BARK, 340s. cwt. spot, nominal, shipment 330s., c.i.f. Ceylon QUILLS, (lb., c.i.f.) five 0's, 11s. 9d.; four 0's, 10s. 4d. firsts, 7s.; quillings, 4s.

COCILLANA.—Bark, 3s. lb., c.i.f. (spot, 3s. 3d.).

COCHINEAL.—(Per lb.). Canary Isles silver-grey, nominally 29s. spot and c.i.f., black brilliant, 32s. 6d. nominal. Peruvian silver-grey, 25s. nominal.

COLOCYNTH PULP.—Spot and c.i.f. 4s. 6d. lb.

CUBEBS.—Spot quoted at 285s. cwt.

DANDELION.—Root, 400s. cwt. spot; 390s., c.i.f. nominal (October).

ERGOT.—Portuguese—Spanish, 8s. 3d. lb.; 7s. 9d., c.i.f.

GENTIAN.—Spot, 300s. cwt.; 280s. c.i.f., nominal.

HONEY.—(per cwt. ex store). Australian light amber, 150s.; medium amber, 137s. 6d. Argentinian, 150s.; Canadian, 180s.; Mexican, 135s.; Chinese, 120s.

HYDRASTIS.—35s. 6d. lb. spot; 34s. 6d. c.i.f.

HYOSCYAMUS.—*Niger*, 2s. 2d. lb.; 2s., c.i.f.

GINGER.—(Per cwt.). Sierra Leone, 205s. spot; Cochín 360s., c.i.f. Jamaica No. 3, 360s. spot; Nigerian split, 180s., spot; peeled, 182s. 6d.; 162s. 6d., c.i.f.

GUM ACACIA.—Kordofan cleaned sorts, 242s. 6d. cwt. spot; 237s. 6d., c.i.f.

IPECACUANHA.—(Per lb.). Matto Grosso, 49s. spot, 48s., c.i.f. nominal; Costa Rican, 61s. spot; 55s., c.i.f., nominal. Colombian, 49s. spot; Nicaraguan, 55s., c.i.f.

JALAP.—Mexican, 6s. 3d. lb. spot, 6s., c.i.f.; Brazilian, 2s. 2d. nominal; 2s. 1d. c.i.f.

KARAYA.—No. 2 f.a.q. gum, 310s. cwt. spot; 285s., c.i.f.

KOLA NUTS.—West African halves 8½d. lb.; afloat, 8d., c.i.f.

LANOLIN.—ANHYDROUS, B.P., is quoted from 5s. 5d. to 6s. 0½d. kilo as to grade in 1-ton lots delivered free drums. Cosmetic grade, 6s. 5d.

LEMON PEEL.—Spot, 2s. 9d. lb., 2s. 6d., c.i.f.

LIQUORICE.—ROOT, Russian, 85s. cwt.; BLOCK JUICE, Anatolian, 250s. per cwt.

LOBELIA.—(lb.) Dutch, new crop, 4s. 2d., c.i.f.; 4s. 4d., spot. American, 12s. 9d., c.i.f.; 13s., spot.

LYCOPodium.—Spot, 35s. lb. nominal.

MACE.—Grenada No. 1, spot, 9s. 6d. lb.

MENTHOL.—(lb.), Chinese, 37s., spot; October-November, 32s., c.i.f. Brazilian, 29s., spot; 28s., c.i.f.

MERCURY.—Spot, £230 per flask of 76 lb. ex warehouse, nominal.

NUTMEGS.—(Per lb.). West Indian (c.i.f. 80's, 4s. 9d.; sound unsorted, 3s. 5d.; defectives on spot, 3s. East Indian (c.i.f.) 80 4s. 11d.; 110's 4s. 2d.; b.w.p., 2s. 6d.

NUX VOMICA.—Shipment, 110s. cwt., c.i.f.

PEPPER.—Sarawak white, 2s. 9½d., spot 2s. 9d., c.i.f.; black, 2s. 1d., c.i.f. Brazil black, grade 1, 2s. 9d., duty paid.

PIMENTO.—Shipment, 694s. cwt., c.i.f.

PODOPHYLLUM.—*Emodi*, 250s. cwt. nominal; spot and c.i.f.

QUILLAIA.—225s. cwt., spot; 210s., c.i.f.

RHUBARB.—Various grades offered at from 9s. to 25s. per lb. spot.

SAFFRON.—Mancha superior, 755s. per lb. Rio, 750s., landed terms.

SARSAPARILLA.—Jamaican, 3s. 6d. 1 spot; 3s., c.i.f., nominal.

SEEDS.—(Per cwt.)—ANISE.—China spot 300s. nominal. CARAWAY.—Dutch, 16½ spot. CELERY.—Indian, 275s. nominal. 262s. 6d., c.i.f. CORIANDER.—Moroccan, 80s.; Rumanian whole, 90s., both duty paid. Moroccan shipment 60s., c.i.f. CUMIN Iranian, 160s., duty paid; 135s., c.i.f. DILL Indian, 160s. spot; shipment, 145s., c.i.f. FENNEL.—Chinese, 105s., duty paid; 97s., c.i.f. FENUGREEK.—Moroccan, 75s., duty paid; shipment 58s. 6d., c.i.f. MUSTARD English, 70s. to 100s., as to quality.

SENEGA.—Canadian, spot, 30s. 6d. 1 29s. 9d., c.i.f. Japanese, 27s. 6d., in bond

SENNA.—(Per lb.) Tinnevely LEAVES spot Prime No. 1, 2s. 3d.; No. 3, f.a.q., 1s. 4½ shipment, No. 3, 1s. 2½d., c.i.f. PO Tinnevely hand-picked, spot, 2s. 10 manufacturing, 1s. 9d. Alexandria has picked, 4s. 6d. to 7s. as to grade; manufacturing forward, 2s. 2d., c.i.f.; spot 2s.

STYRAX.—Spot, 21s. 6d.; 21s., c.i.f.

SQUILL.—WHITE, 155s., cwt.; new crop 140s., c.i.f.

TON QUIN BEANS.—Para, 9s. lb., c.i.f. (10s. spot); Angostura seconds, 7s. landed

TRAGACANTH.—No. 1, £285 cwt.; No. 2 £265 spot.

TURMERIC.—Madras finger, spot, easiest 280s. cwt.; shipment, 255s., c.i.f.

VALERIAN ROOT.—Indian, 360s. cwt. spot; 350s., c.i.f.; Continental, 460s., c.i.f. 480s., spot.

VANILLIN.—(Per lb.), 5-cwt. lots, 21s. 2-cwt. 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d.

WAXES.—(Per cwt.) Bees', Dar-es-Salaam 720s., c.i.f. CANDELLA, 550s., c.i.f. CARNAUBA, fatty grey, 335s.; 312s. 6d., c.i.f. prime yellow, 465s.; 425s., c.i.f.

WITCH HAZEL LEAVES.—4s. 6d. lb., spot 4s. 4d., c.i.f.

Essential and Expressed Oils

ANISE.—Chinese, 16s. 6d. lb.; shipment 15s. 6d., c.i.f.

CLOVE.—(lb.) Madagascar leaf, shipment 12s. 9d., c.i.f.; spot, 13s. 3d. in bond, Eng. distilled bud, 44s. (1-cwt. lots).

LEMONGRASS.—Spot, 50s. kilo nominal; 55s., c.i.f., nominal.

PEPPERMINT.—(Per lb.). *Arvensis*: Chi 11s., spot; 10s. 11d., c.i.f. Brazilian, 10s. spot, 10s. 8d., c.i.f. American *Piperita*, to 47s. 6d.; Italian, 95s.

UNITED STATES REPORT

NEW YORK, OCTOBER 8: Stocks DANDELION ROOT are short and expected to remain so until December. price has risen 25 cents to 75 cents lb. BENZOIN is steady at 25-32 c lb. for the Sumatra and \$5-\$10 lb. Siam.

PATENTS

COMPLETE SPECIFICATIONS ACCEPTED
From the "Official Journal (Patents)."

September 25

Antitumour preparation and process for preparing the same. Chugai Seiyaku K. K. and Yowa HAKKO Kogyo Co., Ltd. 1,132,676.

Method for producing microbial cell-lytic enzymes and the enzymes produced thereby. Yowa HAKKO Kogyo Co., Ltd. 1,132,678.

Noting the growth of micro-organisms. Nisso Corporation. 1,132,681.

Process for the production of a therapeutic agent derived from formaldehyde and ribose. J. W. Blaszcak. 1,132,697.

Podermic darts. Jack the Yeoman Sales, Ltd. 1,132,703.

Survised dispensing devices. Fisons Pharmaceuticals, Ltd. 1,132,709.

Derivatives of glycyrrhetic acid. Biorex Laboratories, Ltd. 1,132,726.

Process for preparing nicotinic acid and isonicotinic acid. Rutgerswerke und Teerverwertung, A.G. 1,132,746.

Surgical drapes. Parke, Davis & Co. 1,132,770.

Acidides. Stauffer Chemical Co. 1,132,783.

Surgical blood remover. Lowell Industries, Inc. 1,132,813.

Disposable containers suitable for use as disposable bed-bottles, and blanks for such containers. G. R. Bjork. 1,132,820.

Thiophates. International Chemical Co., Ltd. 1,132,830.

Process for the continuous precipitation of organic products in the form of gels. Deutsche Gold-und Silber-Scheideanstalt. 1,132,831.

Alkylides and pharmaceutical compositions containing them. Aspro-Nicholas, Ltd. 1,132,854.

Compositions of basically reacting pharmaceutical compounds. Deutsche Gold-und Silber-Scheideanstalt. 1,132,933.

Composition for treatment of angina pectoris and other moladies and process for preparing same. M. B. Granirer. 1,132,945.

6- α -tetraline succinimide compounds. Astra AB. 1,133,012.

Apparatus for inhalation tests with rodents, particularly rabbits. Gallaher, Ltd. 1,133,024.

Highly purified gonadotropins and process for the manufacture thereof. Organon Laboratories, Ltd. 1,133,071.

Derivatives of nitrofurazone. Norwich Pharmacal Co. 1,133,080.

Trichomonas compositions. Smith, Kline French Laboratories, Ltd. 1,133,083.

Alkyls and the manufacture thereof. Upjohn Co. 1,133,107-108.

High patent specifications relating to the same will be obtainable (price 4s. 6d. each) from the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C.2, on November 6.

TRADE MARKS
APPLICATIONS ADVERTISED BEFORE REGISTRATION
"Trade Marks Journal," September 25, No. 4700

SMY, 920,047, by Jane Seymour, Ltd., London, W.1. For perfumes, toilet preparations (not medicated), cosmetic preparations, dentifrices, depilatory preparations, preparations for dressing and setting the hair, soaps and essential oils (3)

ETICA, B920,503, by Ad and Hauser UK, Bournemouth. For hair shampoos, and hair conditioning preparations (3)

ACADO, B921,216, by Studio Girl-Hollywood, Ltd., Havant, Hants. For eye shadow, being a cosmetic preparation (3)

S DE TOI, 922,651, by Mark Grayson, Milton, Middlesex. For perfumes and non-medicated toilet preparations (3)

PIC ICE, 921,394, by Elizabeth of Eden, Ltd., Kingston, 10, Jamaica. GOLDEN NET, 924,498, by Studio Girl-Hollywood, Ltd., Havant, Hants. For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos, soaps and essential oils (3)

LYLIS, 922,677, by L'Oreal, Paris, France. For perfumes, non-medicated toilet preparations, cosmetics, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos, soaps, and essential oils; all being goods for sale in the United Kingdom and for export to the Republic of Ireland and the Channel Islands (3)

SPRING BLOSSOM, 923,220, by Cussons Sons & Co., Ltd., Kersal, Manchester. 7. For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos, soaps, and essential oils; all being goods for sale in the United Kingdom (3)

SPRING BLOSSOM, 923, 221, by Cussons International, Ltd., Kersal Manchester, 7. For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos, soaps and essential oils; all being goods for export (3)

ORJELA, 906,775, by Lloyd's Pharmaceuticals, Ltd., London, W.1. For pharmaceutical, veterinary and sanitary preparations, all being in jelly form (5)

STOP 'N GROW (device), 915,381, by Paige Proprietary, Ltd., Richmond, Victoria, Australia. For pharmaceutical preparations for use as a deterrent to nail biting (5)

tions, cosmetics, dentifrices, depilatory preparations, toilet articles, preparations for the hair, and soaps (3)

POND'S BEAUTY WASH (device), 922,914, by Chesebrough-Pond's, Ltd., London N.W.10. For lotions and creams, all being non-medicated toilet preparations for washing or cleansing the skin and all for sale in the United Kingdom and for export to the Republic of Ireland and the Channel Islands (3)

SPRING BLOSSOM, 923,220, by Cussons Sons & Co., Ltd., Kersal, Manchester, 7. For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos, soaps, and essential oils; all being goods for sale in the United Kingdom (3)

SPRING BLOSSOM, 923, 221, by Cussons International, Ltd., Kersal Manchester, 7. For perfumes, non-medicated toilet preparations, cosmetic preparations, dentifrices, depilatory preparations, toilet articles, sachets for use in waving the hair, shampoos, soaps and essential oils; all being goods for export (3)

ORJELA, 906,775, by Lloyd's Pharmaceuticals, Ltd., London, W.1. For pharmaceutical, veterinary and sanitary preparations, all being in jelly form (5)

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COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Sunday, October 13

INSTITUTE OF PHARMACY MANAGEMENT, White Swan hotel, Stratford-on-Avon, at 12.30 p.m. Fourth annual conference. Until October 14.

PORTSMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Portsmouth Cathedral, at 11 a.m. St. Luke's tide service.

Monday, October 14

FINCHLEY BRANCH, PHARMACEUTICAL SOCIETY, ARNOS ARMS hotel, Arnos Grove, London, N.11, at 8 p.m. Dr. J. Gilbert (Food Hygiene Laboratory, Colindale) on "Food Poisoning."

MID-GLOMORGAN BRANCH, PHARMACEUTICAL SOCIETY, Globe Inn, Newton, Porthcawl, at 7.30 p.m. Skittles evening with buffet.

NOTTINGHAM BRANCH, PHARMACEUTICAL SOCIETY, 64 St. James's Street, Nottingham, at 8 p.m. Film evening.

PLYMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Lecture room, Freedom Fields Hospital, at 7.30 p.m. Dr. G. M. Mitchell (University of Wales) on "Drugs of Addiction."

RETAIL ALLIANCE, Chester College of Further Education, Eaton Road, Handridge, Chester, at 7.45 p.m. Decimatisation meeting.

ROMFORD BRANCH, PHARMACEUTICAL SOCIETY, Lecture theatre, research building, May & Baker, Ltd., Dagenham, at 7.45 p.m. Dr. W. Michell on "A Journey through Australasia and United States of America."

UNIVERSITY OF LONDON, Royal Postgraduate Medical School, 150 Du Cane Road, London, W.12, at 6 p.m. Dr. A. Doughty (Kingston Hospital) on "Clinical Trials in Anaesthesia."

Tuesday, October 15

DEPARTMENT OF PHARMACY, HERIOT-WATT UNIVERSITY, 79 Grassmarket, Edinburgh, at 8 p.m. Extension course in pharmacology. Dr. P. P. Fowler on "Drug Treatment of Rheumatic Diseases."

EAST KENT BRANCH, PHARMACEUTICAL SOCIETY, County hotel, Canterbury, at 7.45 p.m. Mr. Spear (deputy chief inspector, Drugs Branch, Home Office) on "Drugs — Misuse and Abuse."

GLASGOW AND WEST OF SCOTLAND BRANCH, PHARMACEUTICAL SOCIETY AND GLASGOW DIVISION, BRITISH MEDICAL ASSOCIATION, Lecture theatre, Glasgow Western Infirmary, at 8 p.m. Dr. J. Crooks (Aberdeen University) on "Drug Problems in the Hospital Environment."

PRINT AND PUBLICITY

PRESS ADVERTISING

BRISTOL-MYERS Co., LTD., Stonefield Way, South Ruislip, Middlesex: Mum deodorant (including free 5s. cinema ticket voucher). The voucher will be in *Nineteen* magazine and featured in national Press advertising.

FIONA SANDS, LTD., 2 Old Bond Street, London, W.1: Micro-encapsulated sample of Adagio perfume on card (as recently included in *THE CHEMIST AND DRUGGIST*, in November issue of *Honey*).

INFAMARK, LTD., 42 Upper Berkeley Street, London, W.1. Mother-to-be box. In *Daily Mirror*, *Daily Record*, *People*, *Daily Express*, *Woman's Own*, *Woman's Realm*, *Mother, My Home and Family*.

WILKINSON SWORD, LTD., Sword Works, Southfield Road, London, W.4: New Wilkinson Sword razor. In leading magazines.

PUBLICATIONS

Medical Propaganda

CIBA LABORATORIES, LTD., Horsham, Sussex: "Synacthen . . . therapeutic and diagnostic uses" (16-p. booklet).

GLAXO LABORATORIES, LTD., Greenford, Middlesex: "Polimyxetin vaccine (inactivated) Glaxo" (file card).

ORGANON LABORATORIES, LTD., Crown House, Morden, Surrey: "Pavulon (NA-97) . . . non-depolarising neuromuscular blocking agent" (16-p. booklet).

LEICESTER AND LEICESTERSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Grand hotel, Granby Street, Leicester, at 7.45 p.m. Dr. P. F. D'Arcy on "Pharmacy in the Sudan and Middle East." (Note change of venue).

NOTTINGHAM BRANCH, INSTITUTE OF PACKAGING, Welbeck hotel, Nottingham, at 7.30 p.m. M. Pierre Bongard on "Perfumery."

ROMFORD AND SOUTHLAND-ON-SEA BRANCHES, PHARMACEUTICAL SOCIETY, ESSEX CENTRE, HEALTH VISITORS' ASSOCIATION and REGION D, AREA 1, ROYAL COLLEGE OF MIDWIVES, Masonic hall, Hutton, Essex, at 7.15 p.m. Meeting on infantile gastro-enteritis and feeding hygiene sponsored by Milton Division, Vick International, Ltd.

THANET BRANCH, PHARMACEUTICAL SOCIETY, Grosvenor Court hotel, Cliftonville, at 7.45 p.m. Dr. Mitchard on "Work on Amphetamines."

WORKING BRANCH, PHARMACEUTICAL SOCIETY, Medical centre, St. Peter's Hospital, Chertsey, at 8 p.m. Professor E. Camps on "Poisoning—Accident, Suicide or Murder?"

Wednesday, October 16

BOURNEMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Medical centre, Boscombe, at 1.15 p.m. Dr. P. M. S. Gillam on "Treatment of Angina Pectoris."

DESIGN CENTRE, Haymarket, London, S.W.1. "Lighting for Living" exhibition. Until November 23.

EAST METROPOLITAN BRANCH, PHARMACEUTICAL SOCIETY AND WEST HAM ASSOCIATION OF PHARMACISTS, Macarthy's, Ltd., Chesham House, Chesham Close, Romford, at 8 p.m. Wine and cheese evening (5s. per head).

TEES-SIDE BRANCH, PHARMACEUTICAL SOCIETY, Swan hotel, Bellingham, at 8 p.m. Annual dance.

UNIVERSITY OF LONDON, Royal Postgraduate Medical School, 150 Du Cane Road, London, W.12, at 2 p.m. Dr. C. C. F. Blake (Oxford) on "Structure of Lysozyme."

Thursday, October 17

BEDFORDSHIRE BRANCH, PHARMACEUTICAL SOCIETY, Cross Keys hotel, Pulloxhill, at 8 p.m. Mr. D. F. Lewis (secretary and registrar) on "The Society."

BIRKENHEAD BRANCH, PHARMACEUTICAL SOCIETY, Prenton hotel, Borough Road, Birkenhead, at 8 p.m. Borough Engineer on "Redevelopment of Birkenhead."

CHELSEA COLLEGE OF SCIENCE AND TECHNOLOGY, UNIVERSITY OF LONDON, Manresa Road, London, S.W.3, at 7 p.m. Dr. P. Turner (St. Bartholomew's Hospital) on "Drug Allergies."

DUNDEE AND EASTERN SCOTTISH BRANCH, PHARMACEUTICAL SOCIETY, Queen's hotel, Dundee, at 7.30 p.m. Branch representatives' reports followed by Mr. T. McLeod on "Side Effects of Drugs."

EPSOM AND SUTTON BRANCHES, PHARMACEUTICAL SOCIETY, and NATIONAL PHARMACEUTICAL UNION, Carter Inn, High Street, Epsom, at 8 p.m. Mr. V. R. McCready (isotopes department, Royal Marsden Hospital) on "Diagnostic Isotopes."

HARROGATE BRANCH, PHARMACEUTICAL SOCIETY, Marlborough cafe, 3 Oxford Street, Harrogate, at 8 p.m. Wine and cheese party (5s. per head).

HASTINGS BRANCH, NATIONAL PHARMACEUTICAL UNION, Hastings College of Further Education, Archery Road, St. Leonards on Sea, at 7 p.m. Meeting on "The Industrial Training Act and the Proposed New Course for Dispensing Technicians." Speakers: Mr. J. Goodall (principal of the College); Mr. E. J. Downing (secretary, Pharmacy Assistants Training Board); Mr. C. S. Chapman (head of Department) and Mr. G. C. Duncan (lecturer in pharmaceutical subjects).

MANCHESTER PHARMACEUTICAL ASSOCIATION, Boyd House, Victoria Park, Manchester, at 8 p.m. Student prize-giving by Dr. A. S. Haigh (Imperial Chemical Industries, Ltd.). NORTHUMBRIA BRANCH, PHARMACEUTICAL SOCIETY, Northumbria hotel, Osborne Road, Newcastle upon Tyne, at 7.30 p.m. Mr. J. R. Dale (chief inspector, Pharmaceutical Society) on "Current Legal and Professional Affairs in Pharmacy."

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, 17 Bloomsbury Square, London, W.C.1, at 7 p.m. Franco-British Pharmaceutical Commission symposium on "French Pharmacy and the Common Market." Speakers include: M. R. Morice (director, S.P.E.C.I.A.); Professor M. Guillot (Faculté de Pharmacie, Paris) and Sir Hugh Linstead (chairman, Macarthy's, Ltd).

RETAIL ALLIANCE, Great Northern hotel, Leeds, at 7.30 p.m. Decimisation meeting.

REIGATE AND REDHILL BRANCH, PHARMACEUTICAL SOCIETY, CIBA Laboratories, Ltd., Horsham, at 7.30 p.m. Mr. L. Priest (a member of headquarters staff) on "The Medicines Act, 1968."

SHEFFIELD BRANCH, PHARMACEUTICAL SOCIETY, Royal Victoria hotel, Sheffield, at 7 p.m. Dinner and dance.

WESTERN PHARMACISTS' ASSOCIATION, Tower of London restaurant, at 7.30 p.m. Informal dinner followed by view of the "Ceremony of the Keys."

Sunday, October 20

NORWICH BRANCH, PHARMACEUTICAL SOCIETY, St. Stephen's Church, Rampant Horse Street, Norwich, at 3 p.m. Annual service for medical and allied professions.

Advanced Information

RETAIL ALLIANCE. A meeting for retailers on the change to decimal currency is being held on October 21 at St. Enoch's hotel, Glasgow, at 7.30 p.m.

Prescribers' Press

What doctors are reading about developments in drugs and treatments

BY analysis of 111 cases of puerperal thromboembolism, workers at Liverpool University and the Welsh National School of Medicine have shown that, statistically, inhibition of lactation by means of ethinyloestradiol is associated with a threefold increase in thromboembolism, the effect being seen mainly in women who had had an operative delivery and were aged over twenty-five. Among women aged more than thirty-five years who had an assisted delivery, inhibition of lactation was accompanied by a tenfold increase in the incidence of thromboembolism. The authors raise doubts about the interpretation of their results, however, but do suggest that administration of ethinyloestradiol may be a factor that can "tip the scales" in women who are already predisposed to puerperal thromboembolism. The B.M.J., in a leading article, comments that prescribers might consider using the minimum effective dosage of oestrogens and pause before giving them at all to any new mother with a considerably greater-than-average chance of thromboembolism because of a past history of it, because of an operative delivery, or because she is thirty-five or over. (B.M.J., October 5, p. 19).

Having shown in 1965 that dipyrindamole (Persantin) inhibits thrombus formation in injured vessels, and platelet aggregation *in vitro*, workers at Oxford University have studied the effect of analogues on platelet behaviour. One such compound, 2,4,6-trimorpholinopyrimido[5,4-d]-pyrimidine (RA433), proved to be a powerful inhibitor of platelet aggregation and electrophoretic behaviour. The authors suggest that if it proves as non-toxic as its relative, it will merit clinical trial in the treatment or prevention of thrombosis (Lancet, October 5, p. 751).

CONTEMPORARY THEMES

Subjects of contributions in current medical and technical publications.

VERONLEPIN: A new, reversible plant growth inhibitor. *Science*, August 23, p. 789.

PUROMYCIN: Action on neuronal mitochondria. *Science*, August 30, p. 900.

ANTI-LYMPHOCYTE SERUM. Mode of action for. *Nature*, September 28, p. 1,325.

ANTIBIOTIC RESISTANCE. *In vitro* reversal of, by ethylenediamine tetraacetic acid. *Nature*, September 28, p. 1,365.

SERMACEIT. The chromatographic analysis of. *J. Pharm. Pharmacol.*, October, p. 775.

A NEW ANTIHEMOPHILIC FACTOR (AHF) CONCENTRATE. *J. Amer. med. Ass.*, August 26, p. 613.

OCULAR COMPLICATIONS OF DRUGS. *J. Amer. med. Ass.*, August 26, p. 631.

DNA. Drugs which affect the structure and function of. *Nature*, September 28, p. 1,321.

METHICILLIN-RESISTANT *Staphylococcus aureus*. Growing clinical significance of. *Lancet*, October 5, p. 741.

A PYRIMIDO-PYRIMIDINE COMPOUND. Effect on platelet behaviour *in vitro* and *in vivo*. *Lancet*, October 5, p. 751.

PHENYLKETONURIA. Present status of differential mass screening procedures for. *Brit. med. J.*, October 5, p. 7.

OESTROGEN THERAPY. Puerperal thromboembolism in relation to the inhibition of lactation by. *Brit. med. J.*, October 5, p. 1.

ORAL HYPOGLYCAEMIC AGENTS in diabetes mellitus. Circadian variation of glucose, insulin and free fatty acids during long-term use of. *Brit. med. J.*, October 5, p. 25.

MEASLES VACCINATION with reduced dosage. *Brit. med. J.*, October 5, p. 28.

DRUG DISTRIBUTION AND UNIT-DOSE PACKAGING in hospitals (symposium of five papers). *Amer. J. hosp. Pharm.*, August 1968, p. 396-434.

NOTES ON NEW MEDICAMENTS

PAVULON.—*Chemistry*: 2β,16β-Dipiperidin-5α-androstane 3α,17β-diol diacetate dimethyl bromide (pancuronium bromide). The inclusion of certain biologically active groups naturally occurring compounds sometimes leads to the development of new derivatives with interesting pharmacological properties. It is well known, for example, that small changes in the structure of the steroids lead to the exhibition of widely different properties, as shown by testosterone and oestradiol, where a slight chemical change is associated with a complete reversal of action. The addition of an acetylcholine-like structure to pregnanone resulted in a compound with muscle-relaxant properties of the tubocurarine type, and further research led to the synthesis of pancuronium bromide. This compound is a highly specific neuromuscular blocking agent of considerable potency. Comparison with tubocurarine it is effective at lower dosage and its relaxant effect is more rapid in onset, though of similar duration. Unlike tubocurarine, pancuronium does not bring about any release of histamine or cause the associated bronchospasm, it does not cause a ganglion blockade and consequent fall in blood pressure. The relaxant action is reversed by neostigmine. Preliminary reports suggest that the drug may be of particular value in poor-risk patients.

WILLS

MR. A. SCRAGG, M.P.S., Cremona House, Heathcote Road, Swadincote, Derbyshire, £33,326 (£32,578 net).

MR. N. SPEEDY, M.P.S., 39 Spring View, Whitby, Yorks, left £11,765 (£11,565 net).

COMMERCIAL TELEVISION

The information given in the table is of number of appearances and total screen time in seconds. Thus 7/105 means that the advertiser's announcement will, during week covered, be screened seven times and for a total of 105 seconds.

Period—October 20-26

PRODUCT	London	Midland	Lancashire	Yorkshire	Scotland	Wales & West	South	North-east	Anglia	Ulster	Westward	Border	Grampian	Eireann	Channel 4
Askit powders ...	—	—	—	—	4/44	—	—	—	—	—	—	2/22	3/45	—	—
Dreamland electric blankets ...	—	—	—	—	—	—	—	—	—	1/15	—	6/90	6/90	—	—
Hermesetas ...	—	—	—	—	—	—	3/15	—	—	—	—	—	—	—	—
Horlicks ...	4/120	1/30	1/30	4/120	4/130	2/60	2/60	1/30	4/120	1/30	2/60	1/30	3/110	1/7	5/
Laguna tonic bath ...	3/45	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paton's nail hardener ...	—	—	4/60	—	—	—	—	—	—	—	—	—	—	—	—
Supersoft shampoo ...	3/45	3/45	3/45	—	—	—	3/45	—	—	—	—	—	—	—	—

